Engineering Report for P-3/UWB Flight Portage, Maine 27-28 June 1995

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Introduction

This report is written as an aid to users of the SAR data collected by the P-3/SAR on 27-28 June 1995. The data set generated consists of:

HDDT #E1439 HDDT #E1440 HDDT #E1441 HDDT #E1442 Mission Plan disk, data, etc. Navigation disks Post Pass disks Post Pass Summary Sheets

The report consists of a summary of each pass with crew comments included. Users of the data should review the pass summaries to be alerted for anomalies that may have occurred during the collection or noted by processing or analysis people. The appendix contains plots of critical parameters as a function of time.

This information is provided so that users can examine, in some detail the exact time and magnitude of observed anomalies. In addition users can go back to this data to determine if there is a correlation between "funnies" observed during processing and the engineering data. For example, if there was a blank strip in the image it might correlate with the transmitter power plot showing that the transmitter was off during that time.

All of the data shown in the plots is also recorded on the HDDT's in the Aux. data block and could be reproduced by the user. These plots are included in the appendix as a convenience for users of the data. The appendix is available upon request and thus is not included with this set of data.

Results

This, the third flight of the deployment, went about as well as the previous two. Navigational accuracy over the target was fair, with many passes having a GPS cross-track error of less than .1 nautical mile (nm), and some passes having GPS cross-track errors in excess of .3 nm. Although the Navigator of the aircraft would perform a position update on the LTN-51 INS when excessive cross-track errors were observed, the INS did not always drive the GPS cross-track error to zero. Five passes were noted as "bad" due to cross-track errors in excess of .15 nm. Two of those bad passes were repeated, with one repeat pass a success. The other three passes did not have repeat attempts. The UWB Transmitter performed as well as it did on the other two flights, with occasional computer-to-tranmitter communications problems, but no actual tranmitter output power faults on this flight.

The target site was named the Illustrative Example (IE). The sensor flew by the target site at various aspect and depression angles. Two XLC mode passes were flown, and only the Low 509 MHz mode of the UWB system was used. This mode was run with two transmit waveform notches:

243.0 MHz center frequency, 10 dB depth 255.4 MHz center frequency, 10 dB depth

Problems Noted

- C-band Transmitter output power questionable Passes 3 and 4-5
- X-band RMS video level low Passes 3 and 4-5
- UWB RF drive manual attenuator not reset to 0 1st 30 seconds Pass 6
- UWB Transmitter to Control Computer communications problem Pass 11
- High RFI noted by radar crew Pass 25-26

Pass Summaries

UWB Portage, Maine Day #3 27-28 June 1995

Pass 1 Line 2

XLC synthetic target.

Pass 2 Line 7

UWB low-band, pre-TWT synthetic target.

Pass 3 Line 2

XLC mode. Target: IE + 0 degree aspect angle. This was the first of two XLC mode training passes at 13,500 ft. altitude. The X-band RMS video level on this pass appears low (ranging from 4% to 8% RMS). This could have been caused by the receive attenuator being set too high (20 dB). The C-band transmitter seems to have had some type of output power problem during the first few seconds of the pass, then appeared to operate correctly for the remainder of the pass. This looks like it was basically a good pass.

Pass 4-5 Line 4

XLC mode. Target: IE + 180 degree aspect angle. This was the second of the two training passes. The C-band transmitter again seemed to have some type of problem. RMS video level very low on the X and C-band channels, although receiver attenuation was reduced on the X-band channel from the previous pass. Both X and L-band transmitters worked well, and navigation was otherwise good.

Pass 6 Line 7

UWB Lo-509. Target: IE + 0 degree aspect angle. It appears that an RF drive manual attenuator was not reset after the Pass 2 Synthetic target was run, and output power of the UWB transmitter was lower than usual for the first 30 seconds of the pass. Then, the transmitter was shut down, the manual attenuator reset, and the transmitter powered back up. This operation took less than 10 seconds. The transmitter operated then for the remainder of the pass (about 104 seconds) at full output power. Navigation was excellent, below .02 nm for most of the pass.

Pass 7 Line 5

UWB Lo-509. Target: IE + 180 degree aspect angle. Good pass, with the UWB Transmitter performing without faults and cross-track error below .1 nm throughout pass.

Pass 8 Line 9

UWB Lo-509. Target: IE + 270 degree aspect angle. Good pass, with the UWB Transmitter performing without faults and cross-track error between .1 and .13 nm throughout the pass.

Pass 9 Line 11

UWB Lo-509. Target: IE + 90 degree aspect angle. Good pass, with the UWB Transmitter performing without faults and cross-track error below .15 nm for most of the pass.

Pass 10 Line 13

UWB Lo-509. Target: Calibration Array, Empty Cedar Swamp, Site 5. Bad pass, due to cross-track errors in excess of .15 nm throughout pass (from .15 to .2 nm during pass). A priority 1 pass which was not repeated during the flight.

Pass 11 Line 15

UWB Lo-509. Target: IE + 180 degree aspect angle. First pass at 10,000 ft. was a good one. Although the P Band Power plot shows the UWB transmitter had a problem at the start map point, the radar crew noted the problem was with the Control Computer to transmitter communications (i.e. the transmitter had not faulted) and did not attempt to reset the transmitter. Navigation was good, with a beginning cross-track error of 0 and an ending cross-track error of .14 nm.

Pass 12 Line 17

UWB Lo-509. Target: IE + 0 degree aspect angle. Good pass, with the UWB Transmitter performing without faults and cross-track error below .05 nm throughout pass.

Pass 13 Line 19

UWB Lo-509. Target: IE + 270 degree aspect angle. A fair pass due to cross-track errors between .3 nm and .15 nm during the first 25% of the pass. Cross-track error continued to decrease throughout the pass, to end at 0. No UWB transmitter faults.

Pass 14 Line 21

UWB Lo-509. Target: IE + 90 degree aspect angle. GPS cross-track error was .19 nm at the start of this pass, then decreased very rapidy so that, about 20 seconds into the pass, cross-track error was less than .15 nm (which continued to decrease throughout the pass to end up at .11 nm at end map). UWB transmitter performed without fault. Good pass.

Pass 15 Line 23

UWB Lo-509. Target: Calibration Array, Empty Cedar Swamp, Site 5. A fair pass, based on GPS cross-track error being in excess of .15 nm for about 75% of the pass. Cross-track error started out at .13 nm and increased steadily throughout the pass to end at .22 nm. UWB transmitter did not fault during the pass.

Pass 16 Line 25

UWB Lo-509. Target: IE + 30 degree aspect angle. It appears that the LTN-51 INS was updated after start map on this pass, but even that was not good enough to correct a GPS cross-track error of .3 nm (only dropped to .2 nm after update). Bad pass, which was repeated as pass 18.

Pass 17 Line 27

UWB Lo-509. Target: IE + 210 degree aspect angle. Good pass, with the UWB Transmitter performing without faults and cross-track error between .04 nm and .08 nm throughout pass.

Pass 18 Line 25

UWB Lo-509. Target: Calibration Array, Empty Cedar Swamp, Site 5. Repeat of pass 16, this time was a good one, with the UWB transmitter performing without faults and the GPS cross-track error below .13 nm for most of the pass.

Pass 19 Line 29

UWB Lo-509. Target: IE + 120 degree aspect angle. Good pass, with the UWB Transmitter performing without faults and cross-track error between .07 nm and .05 nm throughout pass.

Pass 20 Line 31

UWB Lo-509. Target: IE + 300 degree aspect angle. Bad pass, due to GPS cross-track error between .23 nm (start) and .15 nm (end) throughout pass. This pass was repeated as pass 23.

Pass 21 Line 33

UWB Lo-509. Target: IE + 60 degree aspect angle. Good pass, with the UWB transmitter performing without faults and the GPS cross-track error below .13 nm for most of the pass. The INS appears to have been updated sometime after start map.

Pass 22 Line 35

UWB Lo-509. Target: IE + 240 degree aspect angle. It appears that the LTN-51 INS was updated after start map on this pass, but even that was not good enough to correct a GPS cross-track error of .3 nm (only dropped to .2 nm after update). Bad pass, which was not repeated.

Pass 23 Line 31

UWB Lo-509. Target: IE + 300 degree aspect angle. Repeat of pass 20. Bad pass, due to GPS cross-track error between .15 nm (start) and .3 nm (end) throughout pass. Pass was not repeated again.

Pass 24 Line 41

UWB Lo-509. Target: IE + 300 degree aspect angle. First pass at 6000 ft altitude, it was a bad pass due to GPS cross-track error between .19 nm and .25 nm during pass. The radar crew noted that there was "no time to repeat" the pass.

Pass 25-26 Line 43

UWB Lo-509. Target: IE + 0 degree aspect angle. Good pass, with the UWB transmitter performing without faults and the GPS cross-track error between .02 nm and .06 nm throughout the pass. The radar crew noted "large interference on this pass", refering to RFI observed on an analog oscilloscope.

Pass 27 Line 45

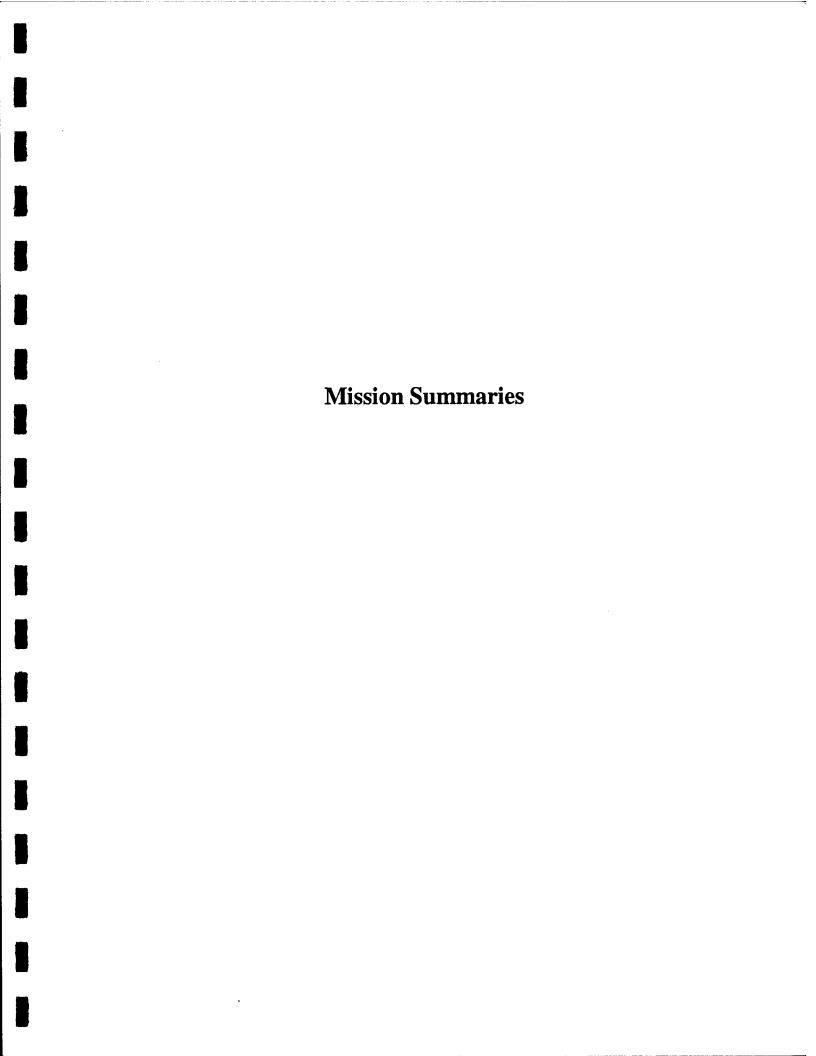
UWB Lo-509. Target: IE + 270 degree aspect angle. Good pass, with the UWB transmitter performing without faults and the GPS cross-track error between .03 nm and .09 nm throughout the pass.

Pass 28 Line 47

UWB Lo-509. Target: IE + 90 degree aspect angle. Good pass, with the UWB transmitter performing without faults and the GPS cross-track error between .1 nm and .04 nm throughout the pass.

Pass 29 Line 49

UWB Lo-509. Target: Calibration Array, Empty Cedar Swamp, Site 5. Bad pass due to GPS cross-track error between .16 nm and .23 nm during pass. This was the last pass of the flight.



Differential GPS Navigation Summary for Portage, ME June 27, 1995 Xtk. and Alt. Error (feet)

	Alt. Mean	Alt. St. Dev.	Xtk. Mean	Xtk. St. Dev.
Pass 3	-3.39	18.92	-963.63	91.11
Pass 4	43.51	2.73	1390.47	201.56
Pass 5	39.46	0.04	-1458	2.72
Pass 6	55.08	2.53	-98.75	25.72
Pass 7	38.85	2.89	700.78	35.67
Pass 8	46.85	2.94	-300.11	65.84
Pass 9	48.59	2.78	404.48	72.95
Pass 10	47.06	3.45	-493.99	50.07
Pass 11	-11.15	1.89	293.17	217.39
Pass 12	-4.41	3.3	-263.95	77.06
Pass 13	-4.06	3.24	167.03	426.48
Pass 14	-3.06	2.09	27.79	88.79
Pass 15	-4.52	3.5	-616.98	95.23
Pass 16	8.52	3.25	720.54	238.09
Pass 17	3.59	4.31	604.43	20.16
Pass 18	14.13	1.7	264.29	202.94
Pass 19	19.13	2.56	-461.08	19.84
Pass 20	14.73	2.76	-456.35	152.1
Pass 21	17.63	3.02	53.9	261.51
Pass 22	6.06	2.35	-875.57	388.11
Pass 23	13.98	2.03	-887.74	349.95
Pass 24	-42.51	3.02	1361.87	97.4
Pass 25	-43.47	1.55	-369.6	69.71
Pass 26	-43.66	1.43	-376.54	69.76
Pass 27	-36.02	1.99	645.78	82.27
Pass 28	-41.03	2.27	-153.59	119.91
Pass 29	-40.4	2.1	-519.84	172.7

NORMALIZED AVE POWER LEVEL SUMMARY (TO: Max Groundspeed & 2000 Hz)

FOR P3 FLIGHT OF 28 Jun 1995, STARTING HOUR: 3

NOTE: X and L band transmitter power levels may vary if the gain of the RF pulse was not adusted for a radar configuration change. Consult the Mission Summary sheet for details.

ASS LINE

POWER (dBm)

		X		L		C		P	GN	IDSPD (kt
									_	
3	2	-31.4	.05	-31.2	.05	-37.3	.04	-70.0	0.00	254.5
4	4	-31.4	0.00	-31.2	0.00	-70.0	0.00	-70.0	0.00	250.7
5		-31.4	0.00	-31.2	0.00	-28.2	0.00	-70.0	0.00	252.6
6	7	-70.0	0.00	-"0.0	0.00	-70.0	0.00	47.0	.97	250.7
7	5	-70.0	0.00	-~0.0	0.00	-70.0	0.00	47.2	.05	254.4
8	9	-70.0	0.00	-"0.0	0.00	-70.0	0.00	47.2	.06	251.8
9	11	-70.0	0.00	-"0.0	0.00	-70.0	0.00	47.2	.02	252.0
10	13	-70.0	0.00	-~0.0	0.00	-70.0	0.00	47.1	.03	251.0
11	15	-70.0	0.00	-''0.0	0.00	-70.0	0.00	-70.0	0.00	251.7
12	17	-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.4	.04	254.9
13	19	-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.8	.08	249.7
14	21	-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.6	.05	250.0
15	23	-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.6	.04	251.6
16	25	-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.6	.05	250.7
17	27	-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.5	.05	253.1
18	25	-70.0	0.00	-''0.0	0.00	-70.0	0.00	46.5	.05	248.8
19	29	-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.5	.04	248.4
20	31	-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.6	.05	252.0
21	33	-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.5	.05	247.2
22	35	-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.6	.04	255.1
23	31	-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.7	.03	247.4
24	41	-70.0	0.00	-"0.0	0.00	-70.0	0.00	46.5	.03	249.8
25	43	-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.4	0.00	251.7
26		-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.4	.05	251.8
27	45	-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.2	.04	250.2
28	47	-70.0	0.00	-''0.0	0.00	-70.0	0.00	46.1	.04	251.6
29	49	-70.0	0.00	-~0.0	0.00	-70.0	0.00	46.0	.05	249.2
VE:										
		-31.4	.02	-:1.2	.02	-32.8	.02	46.6	.08	

PEAR POWER LEVEL SUMMARY

FOR P3 FLIGHT OF 28 Jun 1995, STARTING HOUR: 3

PASS	LINE	PEAK	POWER	(Watts)	
------	------	------	-------	---------	--

		X			C 	P
3	2	2317.0	3542	9	755.5	0.0
4	4	2328.7	3565	5	0.0	0.0
5		2310.6	3537	7	6077.5	0.0
6	7	0.0	0.0	0	0.0	946.3
7	5	0.0	0 (0	0.0	1001.7
8	9	0.0	0	0	0.0	1002.9
9	11	0.0	0 (0	0.0	999.2
_ 10	13	0.0	0	0	0.0	975.0
11	15	0.0	0 (0	0.0	0.0
12	17	0.0	0 (0	0.0	834.6
13	19	0.0	0 (0	0.0	901.2
14	21	0.0	0	0	0.0	870.4
15	23	0.0	0	0	0.0	865.6
16	25	0.0	0	0	0.0	862.3
17	27	0.0	0	0	0.0	857.1
18	25	0.0	0	0	0.0	847.0
19	29	0.0	0	0	0.0	846.8
20	31	0.0		0	0.0	861.5
21	33	0.0	0	0	0.0	857.7
22	35	0.0	0	0	0.0	867.0
23	31	0.0	0	0	0.0	889.7
24	41	0.0		0	0.0	853.0
25	43	0.0		0	0.0	831.8
26		0.0	0	0	0.0	822.3
27	45	0.0		0	0.0	796.6
28	47	0.0		0	0.0	775.0
29	49	0.0	0	0	0.0	765.7
VE:						
}		2318.8	3548	7	2142.8	875.2

MISSION SUMMARY FOR:

Presque Isle DAY 3

ON: 27 Jun 1995

ASS	LN #	S R L W E O A S O		BRD A	DP S	ANGS D T		SAR LK	1	WAVE, CHANI 2		4
		T K		N	Č	Ğ			_	_	•	-
		H		T	Ā	T						
			-									
	2	S H L		25.0	45	0 45.0		270	х нн	L HH	С НН	L VV
4- 5	4	S H L	1	25.0	45			90	X HH	L HH	С НН	L VV
6	7	SHR	1	25.0	45	0 45.0	0 0	90	p VV	p VH	p HV	p HH
	5	SHR	1	25.0	45	0 45.0	180	270	p VV	p VH	p HV	p HH
	9	SHR	1	25.0	45	0 45.0	270	0	p VV	p VH	p HV	р НН
9	11	SHR	1	25.0	45	0 45.0	90	180	p VV	p VH	p HV	p HH
.0	13	SHR	1	25.0	45	0 45.0	276	6	p VV	p VH	p HV	p HH
1	15	SHR	1	25.0	30	0 30.0	180	270	p VV	p VH	p HV	рНН
12	17	S R	1	25.0	30.0	30.0	0	90	p VV	p VH	p HV	р НН
13	19	S R	1	25.0	30.0	30.0	270	0	p VV	p VH	p HV	рИН
4	21	S R	1	25.0	30.0	30.0	90	180	p VV	p VH	p HV	p HH
15	23	S R	1	25.0	30.0	30.0	276	6	p VV	p VH	p HV	р НН
16	25	S R	1	25.0	30.0	30.0	30	120	p VV	p VH	p HV	HH q
.7	27	S R	1	25.0	30.0	30.0	210	300	p VV	p VH	p HV	нн ф
8	25	S R	1	25.0	30.0	30.0	30	120	p VV	p VH	p HV	р НН
19	29	S R	1	25.0	30.0	30.0	120	210	p VV	p VH	VH q	р НН
0	31	S R	1	25.0	30.0	30.0	300	30	p VV	p VH	VH q	нн ф
1	33	SHR	1	25.0	30	0 30.0	0 60	150	p VV	TV q	¬p HV	р нн
22	35	SHR	1	25.0	30	0 30.0	0 240	330	p VV	p VH	p HV	рИН
2 3	31	S R	1	25.0	30.0	30.0	300	30	p VV	p VH	p HV	рНН
4	41	SHR	1	25.0	15	0 15.0	0 180	270	p VV	p VH	¬p HV	р нн
25-26	43	SHR	1	25.0	15	0 15.0	0 0	90	p VV	p VH	p HV	рИН
27	45	SHR	1	25.0	15	0 15.0	0 270	0	p VV	p VH	p HV	рин
8	47	SHR	1	25.0	15	0 15.0	0 90	180	VV q	p VH	VH q	рИН
9	49	S H R	1	25.0	15	0 15.	0 276	6	VV q	p VH	p HV	HH q

MISSION SUMMARY FOR:

Presque Isle DAY 3

ON: 27 Jun 1995

LINE	HDDT	MOCOMP COUNT	UCT TIME	PASS LEN	TGT ALT
			man dien een des ann me ann de		
2	E1439	029861: 0321127	22:36:14 - 22:38:32	(138)	770
4	E1439	0353808 - 0377098	22:46:47 - 22:49:12	(145)	770
7	E1439	0394610 - 0421111	22:56:35 - 22:59:13	(158)	770
5	E1439	0452624 - 0478957	23:06:45 - 23:09:22	(157)	770
9	E1439	0500974 - 0528135	23:19:10 - 23:21:52	(162)	770
11	E1439	055884" - 0585317	23:30:01 - 23:32:39	(158)	770
13	E1439	0622168 - 0649162	23:41:40 - 23:44:21	(161)	800
15	E1439	0667010 - 0693841	23:53:19 - 23:55:59	(160)	770
17	E1440	0726024 - 0751689	00:04:13 - 00:06:46	(153)	770
19	E1440	0784368 - 0811200	00:17:57 - 00:20:37	(160)	770
21	E1440	0835044 - 0861712	00:27:52 - 00:30:31	(159)	770
23	E1440	089359" - 0920725	00:39:17 - 00:41:59	(162)	800
25	E1440	095607: - 0983072	00:52:00 - 00:54:41	(161)	770
27	E1440	101045: - 1037274	01:02:43 - 01:05:23	(160)	770
25	E1440	1066285 - 1093454	01:13:19 - 01:16:01	(162)	770
29	E1440	1131299 - 1158804	01:26:37 - 01:29:21	(164)	770
31	1441	1180490 - 1207494	01:36:25 - 01:39:06	(161)	770
33	1441	1252216 - 1279011	01:49:45 - 01:52:25	(160)	770
35	1441	131536: - 1341200	02:01:48 - 02:04:22	(154)	770
31	1441	1366879 - 1393891	02:16:28 - 02:19:09	(161)	770
41	1441	144975: 1476593	02:38:13 - 02:40:53	(160)	770
43	1441	150177: - 1527940	02:48:11 - 02:50:47	(156)	770
45	1441	156428" - 1590796	03:02:38 - 03:05:17	(158)	770
47	1441	1616643 - 1643480	03:13:11 - 03:15:51	(160)	770
49	E1442	167051: 1697661	03:24:16 - 03:26:58	(162)	800
	2 4 7 5 9 11 3 15 17 9 21 22 25 27 25 29 31 33 35 31 43 45 47	4 E1439 7 E1439 5 E1439 9 E1439 11 E1439 13 E1439 15 E1439 17 E1440 21 E1440 21 E1440 22 E1440 25 E1440 27 E1440 27 E1440 28 E1440 29 E1440 31 1441 33 1441 31 1441 41 1441 41 1441 41 1441 41 1441 41 1441	2 E1439 029861: - 0321127 4 E1439 0353808 - 0377098 7 E1439 0394610 - 0421111 5 E1439 0500974 - 0528135 11 E1439 055884" - 0585317 13 E1439 0622168 - 0649162 15 E1439 0667010 - 0693841 17 E1440 0726024 - 0751689 19 E1440 0784368 - 0811200 21 E1440 0835044 - 0861712 23 E1440 0835044 - 0861712 23 E1440 0956073 - 0983072 27 E1440 101045: - 1037274 25 E1440 1066285 - 1093454 29 E1440 1131299 - 1158804 31 1441 1180490 - 1207494 33 1441 1252216 - 1279011 35 1441 131536: - 1341200 31 1441 1366879 - 1393891 41 1441 144975: - 1476593 43 1441 1501772 - 1527940 45 1441 1564287 - 1590796 47 1441 1564287 - 1590796	2 E1439	2 E1439

Navigation Summary Sheet For P3 Flight of June 27 Starting at 22:36 (UCT)

ass	Time	INS XTE	INS/GPS La		INS/GPS Lo		INS DR	
No	(UCT)	Mean S.D.	Mean	S.D.	Mean	S.D.	LAT	LON
l	(hr:mn:sc)	(nm) (nm)	(ft)	(ft)	(ft)	(ft)	(kt)	(kt)
3	22:36:16	-0.00 .02	-704.6	390.0	-165.1	265.9	-2.0	-1.9
4	22:46:50	-0.00 .02	853.8	495.2	-1117.8	302.0	.7	-3.6
6	22:56:35	-0.00 .02	-1276.4	448.0	62.9	75.5	. 4	4
7	23:06:45	01 .03	1003.8	437.5	320.7	77.9	. 7	. 4
_ 8	23:19:11	04 .05	635.7	279.2	1588.4	408.9	-1.9	1.2
9	23:30:05	06 .05	-20.7	264.3	505.0	449.0	-2.0	2.6
10	23:41:40	 09 .03	-70.2	350.1	492.5	415.6	.1	-2.2
11	23:53:23	0.00 0.00	602.7	481.4	-478.9	323.5	2.6	-3.2
12	00:04:17	.01 .02	-720.5	531.4	-105.4	125.1	5	-0.0
13	00:17:58	.02 .06	1573.8	301.4	279.1	492.8	2.7	-2.4
14	00:27:52	05 .05	529.8	318.8	308.3	404.6	3	1.9
_ 15	00:39:17	10 .02	-693.3	324.4	1128.9	447.7	2	2.8
16	00:52:03	12 .06	-560.8	506.7	74.8	402.9	-2.9	.9
17	01:02:47	08 .04	8.4	483.3	-268.7	368.8	-1.4	-1.2
18	01:13:22	08 .04	-775.0	473.0	-335.3	321.4	1.3	-2.0
19	01:26:37	0.00 .02	700.3	387.8	-1093.2	394.7	. 4	-2.5
20	01:36:29	05 .06	-12.3	506.5	380.0	329.1	2.5	-1.8
21	01:49:45	08 .05	-235.9	466.2	-95.2	482.2	2.9	2.8
22	02:01:49	.02 .09	428.3	560.5	325.7	906.5	4.3	-9.0
23	02:16:29	08 .10	-633.9	437.1	778.7	700.4	-1.9	-2.6
24	02:38:14	 07 .05	430.3	633.4	-119.2	212.2	3.5	. 4
25	02:48:15	02 .04	-521.0	375.1	55.0	313.6	.7	-1.6
27	03:02:40	10 0.00	-440.3	325.9	767.6	464.8	2.2	-2.3
28	03:13:15	08 .05	-427.3	337.0	-101.5	357.8	-3.2	1.2
29	03:24:17	06 .05	-205.1	385.1	457.9	410.7	-2.5	1.7
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Navigation Summary Sheet For P3 Flight of June 27 Starting at 22:36 (UCT)

Pass No	Time (UCT) (hr:mn:sc)	GPS Mean (nm)	XTE S.D. (nm)	Comp. Inc. Mean (°)	Ang. S.D. (°)	Baro. Mean (ft)	Alt. S.D. (ft)	Gnds) INS (kt)	geed GPS (kt)
3	22:36:16	.28	0.00	0.0	0.0	13273.3	19.5	254.5	254.2
4	22:46:50	.20	.04	0.0	0.0	13264.7	3.0	251.5	252.0
6	22:56:35	.01	0.00	0.0	0.0	13334.8	3.7	250.8	251.1
7	23:06:45	.08	.01	0.0	0.0	13266.1	3.5	254.4	254.6
_ 8	23:19:11	12	.01	0.0	0.0	13313.5	3.3	251.8	254.4
9	23:30:05	.14	.01	0.0	0.0	13297.4	3.8	252.1	250.6
10	23:41:40	18	.01	0.0	0.0	13314.6	4.4	251.0	251.4
11	23:53:23	.07	.04	0.0	0.0	9862.1	2.3	251.7	252.4
12	00:04:17	03	.01	0.0	0.0	9894.3	3.8	254.9	254.4
13	00:17:58	11	.08	0.0	0.0	9883.2	3.7	249.8	249.4
14	00:27:52	.13	.02	0.0	0.0	9874.9	2.6	250.1	249.6
_ 15	00:39:17	18	.03	0.0	0.0	9888.7	2.3	251.6	254.0
16	00:52:03	.18	.04	0.0	0.0	9900.4	2.6	250.7	252.8
17	01:02:47	.06	.01	0.0	0.0	9876.2	3.7	253.1	251.7
18	01:13:22	.10	.04	0.0	0.0	9901.2	1.7	248.8	250.2
19	01:26:37	05	.01	0.0	0.0	9886.3	2.2	248.4	251.4
20	01:36:29	18	.02	0.0	0.0	9899.8	2.4	252.1	250.7
21	01:49:45	.09	.05	0.0	0.0	9899.9	2.2	247.2	247.2
_ 22	02:01:49	23	.06	0.0	0.0	9888.8	2.3	255.1	255.6
23	02:16:29	24	.06	0.0	0.0	9903.4	2.0	247.4	250.2
24	02:38:14	.22	.02	0.0	0.0	5940.6	2.9	249.8	250.3
25	02:48:15	04	.02	0.0	0.0	5948.3	2.3	251.8	250.8
27	03:02:40	.05	.02	0.0	0.0	5957.6	3.3	250.2	249.4
28	03:13:15	.05	.01	0.0	0.0	5946.8	1.9	251.6	251.9
29	03:24:17	18	.03	0.0	0.0	5960.7	3.8	249.2	250.6
_									

Date: 6/27/95 Line No.: 1 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

-		3	Latitude	L	ong:.tude							
İ	FROM:	N	63:21.83	W	68:25.93	No.]	Latitude	I	ongitude	Altit	ude
J	Line-up:	N	47:01.12	W	68:25.93	Start	N	46:49.12	W	68:28.98	770	ft
	Start:	N	46:49.12	W	68:25.93	Main	N	46:44.12	W	68:28.98	770	ft
Ì	End:	N	46:39.12	W	68:25.93	Last	N	46:39.12	W	68:28.98	770	ft
	TO:	N	30:02.59	W	68:25.93							

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: XLC Radar Collection mode: Stripmap

X Offset:	4.09 ft	Alt over tgt:	12730.00 ft	Des Trk:	180.00°
Cmp Grg:	2.09 nmi	Ant Dep ang:	25.00°	Look:	Right
Cmp Alt: 1	2730.00 ft	Est time:	2:24 min	Resolution:	
Map Len:	10.00 nmi	MCP Slt rng:	2.96 nmi	Swath Width:	Single

Strip Len: 10.00 nmi Str.p Len Pad: 0.00 nmi
Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°
RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presum@

	Wv/	'Pol Swth	Cent Ang Tgt	Dep Ang	Starting	Range
Ch 1	1: X	HH	45.00°	45.00°	1.64	nmi
Ch 2	2: L	HH	45.00°	45.00°	1.64	nmi
Ch 3	3: E	HH	45.00°	45.00°	1.64	nmi
Ch 4	1: L	VV	45.00°	45.00°	1.64	nmi

Date: 6/27/95 Line No.: 2 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

]	Latitude	L	ong:.tude							
ı	FROM:	N	30:02.59	W	68: 25. 93	No.]	Latitude	I	ongitude	Altitu	ıde
,	Line-up:	N	46:27.13	W	68:25.93	Start	N	46:39.12	W	68:28.98	770	ft
	Start:	N	46:39.12	W	68:25.93	Main	N	46:44.12	W	68:28.98	770	ft
Ì	End:	N	46:49.12	W	68:25.93	Last	N	46:49.12	W	68:28.98	770	ft
ı	TO:	N	63:21.83	W	68:25.93							

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data
Radar Mode: XLC Radar Collection mode: Stripmap

X Offset:	4.09 ft	Alt over tgt:	12730.00 ft	Des Trk:	0.00°
Cmp Grg:	2.10 nmi	Ant Dep ang:	25.00°	Look:	Left
Cmp Alt: 12	730.00 ft	Est time:	2:24 min	Resolution:	
Map Len:	10.00 nmi	MCP Slt rng:	2.96 nmi	Swath Width:	Single
Strip Len:	10.00 nmi	Str.p Len Pad:	0.00 nmi		-

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: -90.00° End Squint: -90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	х нн	45.00°	45.00°	1.64 nmi
Ch 2:	L HH	45.00°	45.00°	1.64 nmi
Ch 3:	С НН	45.00°	45.00°	1.64 nmi
Ch 4:	r vv	45.00°	45.00°	1.64 nmi

Date: 6/27/95 Line No.: 3 Miss Title: Portage, ME: DAY 3

Aircraft positions

Target: IE

]	Latitude	L	ong:.tude							
I	FROM:	N	30:02.59	W	68:32.03	No.		Latitude	1	Longitude	Altitu	ıde
ļ	Line-up:	N	46:27.13	W	68:32.03	Start	N	46:39.12	W	68:28.98	770	ft
	Start:	N	46:39.12	W	68:32.03	Main	N	46:44.12	W	68:28.98	770	ft
	Fnd.	N	16.19 12	W	68 32 N3	T.act	M	46.49 12	W	68 • 28 98	770	ft

N 46:49.12 W 68:32.03 N 63:21.83 W 68:32.03 TO:

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: XLC Radar Collection mode: Stripmap

Alt over tgt: 12730.00 ft Des Trk: 0.00° X Offset: 4.11 ft Ant Dep ang: 25.00° Look: Right 2.10 nmi Cmp Grg:

Cmp Alt: 12730.00 ft Est time: 2:24 min Resolution:

10.00 nmi MCP Slt rng: 2.96 nmi Swath Width: Single Map Len:

Strip Len: 10.00 nmi 0.00 nmi

MCP SIT ING.
Str:p Len Pad: 0.00 n
90.00° 0.00 ft Req Pndr: End Squint: 90.00°

RgGtDlt: 0.00 ft Adj (3nd Scene: 5000.00 ft

Pre-processor mode: Presumo

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	X HH	45.00°	45.00°	1.64 nmi
Ch 2:	L HH	45.00°	45.00°	1.64 nmi
Ch 3:	С НН	45.00°	45.00°	1.64 nmi
Ch 4:	L VV	45.00°	45.00°	1.64 nmi

Date: 6/27/95 Line No.: 4 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

•]	Latitude	\mathbf{L}	ong:.tude							
FROM:	N	63:21.83	W	68:32.03	No.]	Latitude	1	Longitude	Altitu	uđe
Line-up:	N	47:01.12	W	68:32.03	Start	N	46:49.12	W	68:28.98	770	ft
Start:	N	46:49.12	W	68:32.03	Main	N	46:44.12	W	68:28.98	770	ft
End:	N	46:39.12	W	68 32.03	Last	N	46:39.12	W	68:28.98	770	ft
TO:	N	30:02.59	W	68:32.03							

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: XLC Radar Collection mode: Stripmap

X Offset:	4.09	ft A	alt over tgt:	12730.00 ft	Des Trk:	180.00°
Cmp Grg:	2.09	nmi A	int Dep ang:	25.00°	Look:	Left
Cmp Alt: 1	L2730.00	ft E	st time:	2:24 min	Resolution:	
			ICP Slt rng:	2.96 nmi	Swath Width:	Single
Strip Len:	10.00	nmi S	Str:p Len Pad	: 0.00 nmi		_
Pea Dndr.	0 00	ft P	Rea Sauint.	-00 00°	End Couint.	-00 00°

Req Pndr: 0.00 ft Beg Squint: -90.00° End Squint: -90.00° RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	X HH	45.00°	45.00°	1.64 nmi
Ch 2:	L HH	45.00°	45.00°	1.64 nmi
Ch 3:	СНН	45.00°	45.00°	1.64 nmi
Ch 4:	r vv	45.00°	45.00°	1.64 nmi

Date: 6/27/95 L. ne No.: 5 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Long:.tude Latitude

W 68:25.93 FROM: N 63:21.83 Latitude Longitude No. Altitude Line-up: N 47:01.12 W 68:25.93 Start N 46:49.12 W 68:28.98 770 ft Start: N 46:49.12 W 68:25.93 Main N 46:44.12 W 68:28.98 770 ft N 46:39.12 W 68:25.93 Last N 46:39.12 W 68:28.98 770 ft End:

N 30:02.59 W 68:25.93 TO:

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Collection mode: Stripmap Radar Mode: UWB

X Offset: 4.09 ft Alt over tgt: 12730.00 ft Des Trk: 180.00° 2.09 nmi Ant Dep ang: 25.00° Look: Cmp Grg: Right

Cmp Alt: 12730.00 ft Est time: Resolution:

2:24 min 2.96 nmi 10.00 nmi MCP Slt rng: Map Len: Swath Width: Single

10.00 nmi Str:p Len Pad: Strip Len: 0.00 nmi

Beg Squint: Req Pndr: 0.00 ft 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft Adj Gnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CML1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Length: Sampling Frequency: 800.0 MHz 0.0 uSec Notches:

Predistortion Type: UWB Amplitude fix 1) 1 MHz Bandwidth Centered @ 242.9 MHz, Depth @ 9.3 dB

1 MHz Bandwidth Centered @ 406 MHz, Depth @ 9.3 dB

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	VV q	45.00°	45.00°	2.71 nmi
Ch	2:	HV q	45.00°	45.00°	2.71 nmi
Ch	3:	p HV	45.00°	45.00°	2.71 nmi
Ch	4:	р нн	45.00°	45.00°	2.71 nmi

Date: 6/27/95 Line No.: 7 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long: tude FROM: N 30:02.59 W 68:32.03 No.

Longitude Altitude Latitude W 68:32.03 Start N 46:39.12 W 68:28.98 770 ft Line-up: N 46:27.13 N 46:44.12 W 770 ft Start: N 46:39.12 W 68:32.03 Main 68:28.98 N 46:49.12 W 68:32.03 Last N 46:49.12 W 68:28.98 770 ft End:

TO: N 63:21.83 W 68:32.03

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 4.11 ft Alt over tgt: 12730.00 ft Des Trk: 0.00° Cmp Grg: 2.10 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 12730.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 2.96 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beq Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presum

Chirp File Parameters:

Transmit Chirp File: CML1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/	/Pol Swt	h Cent Ang	Tgt Dep	Ang Star	cting	Range
Ch 1	L: p	VV	45.00°	45.0	00°	2.71	nmi
Ch 2	2: p	VH	45.00°	45.0	00°	2.71	nmi
Ch 3	3: p	HV	45.00°	45.0	00°	2.71	nmi
Ch 4	. p	HH	45.00°	45.0	00°	2.71	nmi

Date: 6/27/95 Line No.: 9 Miss Title: Portage, ME: DAY 3

Target: IE

Aircraft positions

Latitude Long:.tude N 44:13.17 FROM: W 44:58.54 No. Latitude Longitude Altitude Line-up: N 46:41.98 W 68:04.28 Start N 46:44.11 W 68:21.71 770 ft N 46:44.12 W 770 ft Start: N 46:42.02 W 68:21.71 Main 68:28.98 End: N 46:42.02 W 68:36.25 Last N 46:44.12 W 68:36.25 770 ft

TO: N 44:13.17 W 91 59.42

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 19.53 ft Alt over tgt: 12730.00 ft Des Trk: 270.09° Cmp Grg: 2.10 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 12730.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 2.96 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CCL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	45.00°	45.00°	2.71 nmi
Ch 2:	p VH	45.00°	45.00°	2.71 nmi
Ch 3:	p HV	45.00°	45.00°	2.71 nmi
Ch 4:	НН а	45.00°	45.00°	2.71 nmi

Date: 6/27/95 Line No.: 11 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

FROM: N 44:17.01 W 92:01.04 No. Latitude Longitude Altitude Line-up: N 46:46.17 68 53.71 W Start N 46:44.11 W 68:36.25 770 ft Start: N 46:46.21 W 68:36.25 Main N 46:44.12 W 68:28.98 770 ft N 46:46.21 W 68:21.71 End: Last N 46:44.12 W 68:21.71 770 ft

TO: N 44:17.01 W 44:56.92

> Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 19.55 ft Alt over tgt: 12730.00 ft Des Trk: 89.91° Cmp Grq: 2.10 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 12730.00 ft Est time: 2:24 min Resolution:

MCP Slt rng: Map Len: 10.00 nmi Swath Width: Single 2.96 nmi

10.00 nmi Strip Len: Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RqGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CML1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec Sampling Frequency: 800.0 MHz 0.0 uSec

Length:

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	45.00°	45.00°	2.71 nmi
Ch	2:	p VH	45.00°	45.00°	2.71 nmi
Ch	3:	p HV	45.00°	45.00°	2.71 nmi
Ch	4:	р НН	45.00°	45.00°	2.71 nmi

Date: 6/27/95 Line No.: 13 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: CALCS

Latitude Long: tude

Altitude 45:45.85 No. Latitude Longitude FROM: N 42:36.03 Line-up: N 46:40.39 W 68:04.74 N 46:43.76 W 68:21.75 800 ft Start N 46:44.29 W 800 ft 68:28.98 N 46:41.68 W 68:22.07 Main Start: Last N 46:44.81 W 68:36.21 800 ft End: N 46:42.73 W 68:36.53

TO: N 45:53.35 W 92.35.40

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 18.32 ft Alt over tgt: 12700.00 ft Des Trk: 276.08° Cmp Grq: 2.09 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 12700.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 2.96 nmi Swath Width: Single

Strip Len: 10.00 nmi Str.p Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CML1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CR1.1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	ρVV	45.00°	45.00°	2.70 nmi
Ch	2:	HV q	45.00°	45.00°	2.70 nmi
Ch	3:	VH q	45.00°	45.00°	2.70 nmi
Ch		НН а	45.00°	45.00°	2.70 nmi

Date: 6/27/95 Line No.: 15 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude Latitude Longitude Altitude FROM: N 63:21.83 68:25.15 No. Line-up: N 47:01.12 W N 46:49.12 W 68:28.98 770 ft 68:25.15 Start N 46:44.12 W 68:28.98 770 ft Start: N 46:49.12 W 68:25.15 Main N 46:39.12 W 68:28.98 770 ft Last End: N 46:39.12 W 68:25.15

TO: N 30:02.59 W 68 25.15

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 6.45 ft Alt over tgt: 9230.00 ft Des Trk: 180.00° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Str.p Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CCL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	30.00°	30.00°	2.79 nmi
Ch 2:	p VH	30.00°	30.00°	2.79 nmi
Ch 3:	VH q	30.00°	30.00°	2.79 nmi
Ch 4:	НН ф	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 17 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

Longitude Altitude FROM: N 30:02.59 68:32.80 No. Latitude Line-up: N 46:27.13 68:32.80 Start N 46:39.12 W 68:28.98 770 ft W N 46:44.12 W 770 ft N 46:39.12 W 68:32.80 Main 68:28.98 Start: N 46:49.12 W 68 32.80 Last N 46:49.12 W 68:28.98 770 ft End:

TO: N 63:21.83 W 68:32.80

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 6.45 ft Alt over tgt: 9230.00 ft Des Trk: 0.00° Cmp Grg: 2.64 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CCL1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	30.00°	30.00°	2.79 nmi
Ch 2:	HV q	30.00°	30.00°	2.79 nmi
Ch 3:	VH q	30.00°	30.00°	2.79 nmi
Ch 4:	НН а	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 19 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

W 44:58.75 Latitude Longitude Altitude No. FROM: N 44:12.68 Line-up: N 46:41.44 W 68:04.28 Start N 46:44.11 W 68:21.71 770 ft 68:28.98 Main N 46:44.12 W 770 ft Start: N 46:41.48 W 68:21.71

End: N 46:41.48 W 68 36.25 Last N 46:44.12 W 68:36.25 770 ft

TO: N 44:12.68 W 91:59.21

Tgt Trk:

Vel:

0.0°

0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 24.52 ft Alt over tgt: 9230.00 ft Des Trk: 270.09° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Str.p Len Pad: 0.00 nmi

Reg Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CLL1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	30.00°	30.00°	2.79 nmi
Ch 2:	HV q	30.00°	30.00°	2.79 nmi
Ch 3:	vH q	30.00°	30.00°	2.79 nmi
Ch 4:	р нн	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 21 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

Longitude Altitude 92:01.25 No. Latitude FROM: N 44:17.50 W Line-up: N 46:46.70 W 68:53.71 N 46:44.11 W 68:36.25 770 ft Start 770 ft Main N 46:44.12 W 68:28.98 Start: N 46:46.74 W 68:36.25 N 46:44.12 W 68:21.71 770 ft Last End: N 46:46.74 W 68 21.71

TO: N 44:17.50 W 44 56.71

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 24.55 ft Alt over tgt: 9230.00 ft Des Trk: 89.91° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RqGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CLL1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	γVV q	30.00°	30.00°	2.79 nmi
Ch	2:	HV q	30.00°	30.00°	2.79 nmi
Ch	3:	VH q	30.00°	30.00°	2.79 nmi
Ch	4:	НН а	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 23 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: CALCS

Latitude Long:.tude

Longitude Altitude W 45 46.11 Latitude FROM: N 42:35.56 No. N 46:43.76 W 800 ft Line-up: N 46:39.86 W 68:04.82 Start 68:21.75 N 46:44.29 W 68:28.98 800 ft N 46:41.15 W 68:22.15 Main Start: 800 ft N 46:42.20 W 68 36.61 Last N 46:44.81 W 68:36.21 End:

TO: N 45:52.85 W 92:35.25

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 22.72 ft Alt over tgt: 9200.00 ft Des Trk: 276.08° Cmp Grg: 2.62 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9200.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.03 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Reg Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CLL1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1	L:	VV q	30.00°	30.00°	2.78 nmi
Ch 2	2:	HV q	30.00°	30.00°	2.78 nmi
Ch 3	3:	VH q	30.00°	30.00°	2.78 nmi
Ch 4		НН а	30.00°	30.00°	2.78 nmi

Date: 6/27/95 Line No.: 25 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

FROM: N 31:49.89 78 14.04 No. Latitude Longitude Altitude W Line-up: N 46:30.71 W 68:44.60 Start N 46:39.80 W 68:32.62 770 ft 770 ft Start: N 46:41.11 W 68:35.93 Main N 46:44.12 W 68:28.98 End: N 46:49.77 W 68 28.66 Last N 46:48.45 W 68:25.33 770 ft

TO: N 60:12.77 W 51:51.23

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 1.65 ft Alt over tgt: 9230.00 ft Des Trk: 29.95° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beq Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CUL1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	30.00°	30.00°	2.79 nmi
Ch	2:	HV q	30.00°	30.00°	2.79 nmi
Ch	3:	VH q	30.00°	30.00°	2.79 nmi
Ch	4:	HH q	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 27 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

51:45.39 No. Longitude Altitude FROM: N 60:10.02 Latitude Line-up: N 46:57.51 W N 46:48.45 W 68:13.24 Start 68:25.33 770 ft 68:28.98 770 ft Start: N 46:47.13 W 68:22.02 Main N 46:44.12 W End: N 46:38.47 W 68 29.28 Last N 46:39.80 W 68:32.62 770 ft

TO: N 31:47.42 W 78:07.50

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 1.68 ft Alt over tgt: 9230.00 ft Des Trk: 210.05° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CLL1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	γVV g	30.00°	30.00°	2.79 nmi
Ch 2:	HV q	30.00°	30.00°	2.79 nmi
Ch 3:	VH q	30.00°	30.00°	2.79 nmi
Ch 4:	нн а	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 29 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

No. FROM: N 52:47.33 92.35.12 Latitude Longitude Altitude W Line-up: N 46:54.86 68 48.54 N 46:46.61 W 68:35.29 Start 770 ft N 46:48.89 W 68:33.37 Main N 46:44.12 W Start: 68:28.98 770 ft N 46:41.63 W 68:22.68 770 ft End: N 46:43.89 W 68:20.78 Last

TO: N 36:51.34 W 50:24.96

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 11.97 ft Alt over tgt: 9230.00 ft Des Trk: 119.94° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Str.p Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CML1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRLINOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	30.00°	30.00°	2.79 nmi
Ch	2:	p VH	30.00°	30.00°	2.79 nmi
Ch	3:	VH q	30.00°	30.00°	2.79 nmi
Ch	4:	HH q	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 31 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:tude FROM: N 36:47.45 W 50:29.32 No. Latitude Longitude Altitude Line-up: N 46:33.32 W 68:09.55 Start N 46:41.62 W 68:22.69 770 ft

Start: N 46:39.35 W 68 24.60 Main N 46:44.12 W 68:28.98 770 ft
End: N 46:44.34 W 68 37.19 Last N 46:46.62 W 68:35.28 770 ft

End: N 46:44.34 W 68:37.19 Last N 46:46.62 W 68:35.28 770 1 TO: N 52:42.60 W 92:36.70

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 11.89 ft Alt over tgt: 9230.00 ft Des Trk: 300.06°

Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

map Len: 10.00 mmi McP SIC ing. 5.04 mmi Swath width. Single

Strip Len: 10.00 nmi Str.p Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CLL1U2A

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swtlı Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	30.00°	30.00°	2.79 nmi
Ch 2:	р VH	30.00°	30.00°	2.79 nmi
Ch 3:	VH q	30.00°	30.00°	2.79 nmi
Ch 4:	нн ф	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 33 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

No. FROM: N 36:51.35 W 86:33.02 Latitude Longitude Altitude Line-up: N 46:37.87 W 68:52.25 Start N 46:41.62 W 68:35.27 770 ft Start: N 46:43.90 W 68:37.18 Main N 46:44.12 W 68:28.98 770 ft N 46:48.90 W 68:24.59 Last N 46:46.62 W 68:22.68 770 ft End:

TO: N 52:47.34 W 44:22.84

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 19.98 ft Alt over tgt: 9230.00 ft Des Trk: 59.91° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CLL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1N0A

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	30.00°	30.00°	2.79 nmi
Ch 2:	p VH	30.00°	30.00°	2.79 nmi
Ch 3:	p HV	30.00°	30.00°	2.79 nmi
Ch 4:	НН а	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 35 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

Longitude FROM: N 52:42.59 W 44:21.25 No. Latitude Altitude Start N 46:46.61 W 68:22.67 770 ft Line-up: N 46:50.30 W 68.05.61 Start: N 46:44.33 W 68:20.76 Main N 46:44.12 W 68:28.98 770 ft N 46:39.33 W 68:33.35 Last N 46:41.63 W 68:35.28 770 ft End:

TO: N 36:47.44 W 86:28.63

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 20.01 ft Alt over tgt: 9230.00 ft Des Trk: 240.09° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beq Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CLL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CR1.1N0A

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	30.00°	30.00°	2.79 nmi
Ch	2:	p VH	30.00°	30.00°	2.79 nmi
Ch	3:	p HV	30.00°	30.00°	2.79 nmi
Ch	4:	нн а	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 37 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

Latitude Longitude Altitude FROM: N 60:12.77 85:06.75 No. Line-up: N 47:00.14 W 68:38.09 Start N 46:48.45 W 68:32.63 770 ft N 46:44.12 W 68:28.98 770 ft Start: N 46:49.76 W 68:29.32 Main End: N 46:41.10 W 68:22.05 Last N 46:39.80 W 68:25.34 770 ft

TO: N 31:49.89 W 58 43.93

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 4.49 ft Alt over tgt: 9230.00 ft Des Trk: 149.97° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CLL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	VV q	30.00°	30.00°	2.79 nmi
Ch	2:	р VH	30.00°	30.00°	2.79 nmi
Ch	3:	VH q	30.00°	30.00°	2.79 nmi
Ch	4:	НН ф	30.00°	30.00°	2.79 nmi

Date: 6/27/95 Line No.: 39 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

No. FROM: N 31:47.43 W 58:50.45 Latitude Longitude Altitude Line-up: N 46:28.08 W 68:19.99 Start N 46:39.80 W 68:25.34 770 ft N 46:38.48 W 68:28.66 Main N 46:44.12 W 68:28.98 770 ft Start: N 46:47.14 W 68:35.93 Last N 46:48.45 W 68:32.62 770 ft End:

TO: N 60:10.03 W 85:12.55

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 4.48 ft Alt over tgt: 9230.00 ft Des Trk: 330.03° Cmp Grg: 2.63 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 9230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.04 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: PresumG

Chirp File Parameters:

Transmit Chirp File: CLL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	30.00°	30.00°	2.79 nmi
Ch	2:	HV q	30.00°	30.00°	2.79 nmi
Ch	3:	VH q	30.00°	30.00°	2.79 nmi
Ch	4:	НН а	30.00°	30.00°	2.79 nmi

Line No.: 41 Miss Title: Portage, ME: DAY 3 Date: 6/27/95

Aircraft positions

Target: IE

Latitude Long:.tude

Longitude FROM: N 63:21.83 W 68:24.31 No. Latitude Altitude Start N 46:49.12 W 68:28.98 770 ft Line-up: N 47:01.12 W 68:24.31 N 46:49.12 W 68:24.31 Main N 46:44.12 W 68:28.98 770 ft Start: N 46:39.12 W 68:24.31 N 46:39.12 W 68:28.98 770 ft End: Last

TO: N 30:02.59 W 68:24.31

> 0.0° Vel: 0.0 knots Tqt Trk:

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 9.62 ft Alt over tgt: 5230.00 ft Des Trk: 180.00° 25.00° Look: Cmp Grq: 3.21 nmi Ant Dep ang: Right

Cmp Alt: 5230.00 ft Est time: Resolution: 2:24 min

Swath Width: Single 10.00 nmi MCP Slt rng: 3.33 nmi Map Len:

Strip Len Pad: Strip Len: 10.00 nmi 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft Adj (ind Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: C'LlU2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: Length: 0.0 uSec 800.0 MHz

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CR1.1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	VV q	15.00°	15.00°	3.07 nmi
Ch 2:	p VH	15.00°	15.00°	3.07 nmi
Ch 3:	p HV	15.00°	15.00°	3.07 nmi
Ch 4:	нн ф	15.00°	15.00°	3.07 nmi

Date: 6/27/95 Line No.: 43 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Longitude

FROM: N 30:02.59 68:33.65 No. Latitude Longitude Altitude W Start N 46:39.12 W 68:28.98 770 ft Line-up: N 46:27.13 W 68:33.65 770 ft N 46:39.12 W 68:33.65 Main N 46:44.12 W 68:28.98 Start: N 46:49.12 W 68:33.65 Last N 46:49.12 W 68:28.98 770 ft End:

TO: N 63:21.83 W 68:33.65

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 9.62 ft Alt over tgt: 5230.00 ft Des Trk: 0.00° Cmp Grg: 3.22 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 5230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.33 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CLL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRLINOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	15.00°	15.00°	3.07 nmi
Ch 2:	p VH	15.00°	15.00°	3.07 nmi
Ch 3:	VH q	15.00°	15.00°	3.07 nmi
Ch 4:	нн а	15.00°	15.00°	3.07 nmi

Date: 6/27/95 Line No.: 45 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: IE

Latitude Long:.tude

W 44:58.97 No. Latitude Longitude Altitude FROM: N 44:12.15 Line-up: N 46:40.86 W 68:04.28 N 46:44.11 W Start 68:21.71 770 ft 770 ft Main N 46:44.12 W 68:28.98 Start: N 46:40.90 W 68:21.71 End: N 46:40.90 W 68:36.25 Last N 46:44.12 W 68:36.25 770 ft

TO: N 44:12.15 W 91:58.99

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 29.93 ft Alt over tgt: 5230.00 ft Des Trk: 270.09° Cmp Grg: 3.21 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 5230.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.33 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft AdjGnd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CML1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1N0A

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	15.00°	15.00°	3.07 nmi
Ch 2:	HV q	15.00°	15.00°	3.07 nmi
Ch 3:	р HV	15.00°	15.00°	3.07 nmi
Ch 4:	НН а	15.00°	15.00°	3.07 nmi

Line No.: 47 Miss Title: Portage, ME: DAY 3 Date: 6/27/95

Aircraft positions Target: IE

Long:.tude FROM: N 44:18.04 W 92:01.47 No. Latitude Longitude Altitude Line-up: N 46:47.28 W 68:53.71 Start N 46:44.11 W 68:36.25 770 ft 770 ft Start: N 46:47.33 W 68:36.25 Main N 46:44.12 W 68:28.98

N 46:47.33 W 68:21.71 Last N 46:44.12 W 68:21.71 770 ft End:

N 44:18.04 W 44:56.49 TO:

Latitude

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 29.98 ft Alt over tgt: 5230.00 ft Des Trk: 89.91° Cmp Grq: 3.21 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 5230.00 ft Est time: Resolution: 2:24 min

10.00 nmi MCP Slt rng: Swath Width: Single Map Len: 3.33 nmi

0.00 nmi 10.00 nmi Strip Len Pad: Strip Len:

Beg Squint: Req Pndr: 0.00 ft 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft Adj Gnd Scene: 5000.00 ft

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CLL1U2B

Starting Frequency: 215.0 MHz 26.3 MHz/uSec Rate:

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Predistortion Type: UWB Amplitude fix Notches: NONE

Receive Chirp File: CRL1NOA

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	15.00°	15.00°	3.07 nmi
Ch 2:	p VH	15.00°	15.00°	3.07 nmi
Ch 3:	p HV	15.00°	15.00°	3.07 nmi
Ch 4:	рин	15.00°	15.00°	3.07 nmi

Date: 6/27/95 Line No.: 49 Miss Title: Portage, ME: DAY 3

Aircraft positions Target: CALCS

Latitude Long:tude

45:46.39 FROM: Latitude Longitude Altitude N 42:35.05 No. Line-up: N 46:39.29 W 68:04.91 Start N 46:43.76 W 68:21.75 800 ft N 46:40.59 W 68:22.23 Main N 46:44.29 W 68:28.98 800 ft Start: End: N 46:41.63 W 68:36.69 Last N 46:44.81 W 68:36.21 800 ft

TO: N 45:52.31 W 92:35.10

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB Radar Collection mode: Stripmap

X Offset: 27.31 ft Alt over tgt: 5200.00 ft Des Trk: 276.08° Cmp Grg: 3.19 nmi Ant Dep ang: 25.00° Look: Right

Cmp Alt: 5200.00 ft Est time: 2:24 min Resolution:

Map Len: 10.00 nmi MCP Slt rng: 3.31 nmi Swath Width: Single

Strip Len: 10.00 nmi Strip Len Pad: 0.00 nmi

Req Pndr: 0.00 ft Beg Squint: 90.00° End Squint: 90.00°

RgGtDlt: 0.00 ft Adj (nd Scene: 5000.00 ft

Pre-processor mode: Presumo

Chirp File Parameters:

Transmit Chirp File: CLL1U2B

Starting Frequency: 215.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

Notches: NONE Predistortion Type: UWB Amplitude fix

Receive Chirp File: CRL1N0A

Starting Frequency: 1405.0 MHz Rate: 26.3 MHz/uSec

Sampling Frequency: 800.0 MHz Length: 0.0 uSec

		Wv/Pol	Swtlı Cent Ang	Tgt Dep Ang	Starting Range
Ch	1:	p VV	15.00°	15.00°	3.05 nmi
Ch	2:	p VH	15.00°	15.00°	3.05 nmi
Ch	3:	VH q	15.00°	15.00°	3.05 nmi
Ch	4:	НН а	15.00°	15.00°	3.05 nmi

Post-pass Data Sheets

27 Jun 1995

Post-line Data Sheet Line 2

Time: 178:22:36:14 Pass

Tape: E1439

Mission: Presque Isle DAY 3 Reg.#

0.0

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	13500 ft 13273 ft s.d = 18003 ft Left	Wave/Pol.: 19 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 X-HH 45.0° 45.0° 9947	CH 2 L-HH 45.0° 45.0° 9947	CH 3 C-HH 45.0° 45.0° 9947	CH 4 L-VV 45.0° 45.0° 9947
Depr Ang:	25.0°	Near Rng Dep:	90.0°	90.0°	90.0°	90.0°
Des. trk:	0.0°	Far Rng Dep:	30.6°	30.6°	30.6°	30.6°
Start Sq:	-90.0°	Atten (dB):	20.0	35.0	18.0	35.0
End Sq:	-90.0°	RMS Video (%FS)	7.0	27.5	24.2	26.8

WAYPOINTS

Latitude Longitude

Line_up: N 46:27.13 W 68:25.93 Main Target: IE Start: N 46:39.12 W 68:25.93 Mocomp Point: End: N 46:49.12 W 68:25.93 Lat: N 46:44.12

Long: W 68:28.98 From: N 30:02.59 W 68:25.93 Tgt Trk: 0.0 Tgt Vel:

Alt: 770.0 ft N 63:21.83 W 68:25.93

RADAR PARAMETERS - for XLC

RTP Channel: 2 Filter damping is Hi -> 10 sec Resolution: High PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 254.5 kts RMS Time Constant: 2^7 Mocomp On Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft

Range Gate Delta: ().0 ft Azimuth Presum Rate: Presum6 Range Tracking is OFF Clutterlock Reference: OFF

Ave Ref Vel -> -1.1 fps (s.d.= Ave Fil Vel -> .2 fps (s.d.= 1.0)

NML XMIT PWR ANT BIAS Tape Footage Drive no. X: -31.4 Elevat..on: 0.0°

Azimuth: Starting: Ending: L: -31.2 0.0° 472 ft (1)C: -37.3 Pitch: 0.0° 1535 ft (1)

CPA (UCT): 00:00:00

P: -70.0

Vel Bias CAll Atten LINE Map Time (UCT) Start: 22:36:14 X: 1024.0 X: 63.8 dB L: 63.8 dB Y: -463.0 End: 22:38:32 Z: 6435.0 C: 63.8 dB

Mocomp Counters

Alt: 0 ft (GPS) 298611 00048E73h Lat: N Start: 0:00: 0 End: 321127 000411667h Lon: E 0:00: 0

Post-line Data Sheet

Time: 178:22:46:47 Pass

CPA (UCT): 00:00:00

Line 4 Mission: Presque Isle DAY 3 Req.#

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	13500 ft 13264 ft s.d = 18003 ft Left	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 X-HH 45.0° 45.0° 9947	CH 2 L-HH 45.0° 45.0° 9947	CH 3 C-HH 45.0° 45.0° 9947	CH 4 L-VV 45.0° 45.0° 9947
Depr Ang:	25.0°	Near Rng Dep:	90.0°	90.0°	90.0°	90.0°
Des. trk:	180.0°	Far Rng Dep:	30.6°	30.6°	30.6°	30.6°
Start Sq:	-90.0°	Atten (dB):	18.0	35.0	18.0	35.0
End Sq:	-90.0°	RMS Video (%FS)	9.1	26.9	3.2	26.9

WAYPOINTS

Latitude Longitude

Line_up: N 47:01.12 W 68:32.03 Start: N 46:49.12 W 68:32.03 Main Target: IE Mocomp Point:

End: N 46:39.12 W 68:32.03 Lat: N 46:44.12 Long: W 68:28.98

From: N 63:21.83 W 68:32.03 Tgt Trk: 0.0 Tgt Vel: 0.0 N 30:02.59 W 68:32.03 Alt: 770.0 ft

RADAR PARAMETERS - for XLC

RTP Channel: 1 Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts) Resolution: High Swath width: Single Ave Gndspd: Real -> 250.7 kts RMS Time Constant: 2^7 Mocomp On Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft

Range Gate Delta: 0.0 ft Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF

Ave Ref Vel -> 4.3 fps (s.d.= .8) Ave Fil Vel -> 6.2 fps (s.d.= .7)

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -31.4	Elevat.on:	0.0°	_	-	
L: -31.2	Azimuth:	0.0°	Starting:	1548 ft	(1)
C: -70.0	Pitch:	0.0°	Ending:	2615 ft	(1)

P: -70.0

Ve	l Bias	CAL Atten	LINE Map Time (UCT))
X:	1024.0	X: 63.8 dB	Start: 22:46:47	
Y:	-463.0	L: 63.8 dB	End: 22:49:12	
Z:	6435.0	C: 63.8 dB		

Mocomp Counters

Alt: 0 ft (GPS) Lat: N Start: 353808 00056610h 0:00: 0 End: 367315 00059AD3h Lon: E 0:00: 0

Post-line Data Sheet

Line 4

Mission: Presque Isle DAY 3 Req.# 2

Time: 178:22:48:11

Pass 5

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	13500 ft 13266 ft s.d = 18003 ft Left	Wave/Pol.: 3 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 X-HH 45.0° 45.0° 9947	CH 2 L-HH 45.0° 45.0° 9947	CH 3 C-HH 45.0° 45.0° 9947	CH 4 L-VV 45.0° 45.0° 9947
Depr Ang:	25.0°	Near Rng Dep:	90.0°	90.0°	90.0°	90.0°
Des. trk:	180.0°	Far Rng Dep:	30.6°	30.6°	30.6°	30.6°
Start Sq:	-90.0°	Atten (dB):	18.0	35.0	15.0	35.0
End Sq:	-90.0°	RMS Video (%FS)	9.3	28.4	4.7	27.1

WAYPOINTS

Latitude Longitude Line up: N 47:01.12 W 68:32.03 Main Target: IE

Start: N 46:49.12 W 68:32.03 Mocomp Point: End: N 46:39.12 W 68:32.03 Lat: N 46:44.12 Long: W 68:28.98

From: N 63:21.83 W 68:32.03 To: N 30:02.59 W 68:32.03 Tgt Trk: 0.0 Tgt Vel: 0.0 Alt: 770.0 ft

RADAR PARAMETERS - for XLC

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: High PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 252.6 kts RMS Time Constant: 2^7 Mocomp On Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6 Range Tracking is OFF

Ave Ref Vel -> 3.4 fps (s.d.= .5) Ave Fil Vel -> 5.4 fps (s.d.= .4)

NML XMIT PWR	ANT BIAS	}	Tape Fo	otage	Drive no.
X: -31.4	Elevaton:	0.0°	_	_	
L: -31.2	Azimuth:	0.0°	Starting:	1548 f	t (1)
C: -28.2	Pitch:	0.0°	Ending:	2615 f	t (1)
P: -70.0			_		

Clutterlock Reference: OFF

CPA (UCT): 00:00:00

Vel Bias CAL Atten LINE Map Time (UCT) X: 63.8 dB L: 63.8 dB X: 1024.0 Start: 22:48:11 Y: -463.0 End: 22:49:12

C: 63.8 dB

Mocomp Counters

Z: 6435.0

Alt: 0 ft (GPS) Lat: N 0:00: 0 Start: 367315 00059AD3h Lon: E End: 377098 0005C10Ah 0:00: 0

Post-line Data Sheet 27 Jun 1995 Time: 178:22:56:35

Tape: E1439 Line 7 Pass

Mission: Presque Isle DAY 3 Req.#

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	13500 ft 13334 ft s.d = 18003 ft Right	Wave/Pol.: 4 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 45.0° 45.0° 16466	CH 2 p-VH 45.0° 45.0° 16466	CH 3 p-HV 45.0° 45.0° 16466	CH 4 p-HH 45.0° 45.0° 16466
Depr Ang:	25.0°	Near Rng Dep:	54.1°	54.1°	54.1°	54.1°
Des. trk:	0.0°	Far Rng Dep:	24.2°	24.2°	24.2°	24.2°
Start Sq:	90.0°	Atten (dB): RMS Video (%FS)	55.0	66.0	54.0	63.0
End Sq:	90.0°		19.0	12.5	16.4	14.7

WAYPOINTS

	Latitude	Longitude	
Line_up:	N 46:27.13	W 68:32.03	Main Target: IE
Start:	N 46:39.12	W 68:32.03	Mocomp Point:
End:	N 46:49.12	W 68:32.03	Lat: N 46:44.12

Long: W 68:28.98 From: N 30:02.59 W 68:32.03 To: N 63:21.83 W 68:32.03 Tgt Trk: 0.0 Tgt Vel: 0.0

Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Ave Gndspd: Real -> 250.7 kts Swath width: Single RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft 0.0 ft Range Gate Delta:

Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel \rightarrow .6 fps (s.d.= 1.0) Ave Fil Vel \rightarrow 1.8 fps (s.d.= .8)

C:

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -70.0	Elevaton:	0.0°	*	.	
L: -70.0	Azimuth:	0.0°	Starting:	2630 ft	(1)

Ending: 3873 ft C: -70.0 Pitch: 0.0° (1)P: 47.0

Vel Bias X: 63.8 dB L: 63.8 dB CAll Atten LINE Map Time (UCT) X: 1024.0 Start: 22:56:35 Y: -463.0 End: 22:59:13

63.8 dB

Mocomp Counters

6435.0

CPA (UCT): 00:00:00 Alt: 0 ft (GPS) Start: 394610 00060572h Lat: N 0:00: 0 End: 421111 00066CF7h Lon: E 0:00: 0

Post-line Data Sheet

Line 5

Mission: Presque Isle DAY 3 Req.#

Time: 178:23:06:45

Pass 7

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	13500 ft 13266 ft s.d = 18003 ft Right	Wave/Pol.: 4 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 45.0° 45.0° 16466	CH 2 p-VH 45.0° 45.0° 16466	CH 3 p-HV 45.0° 45.0° 16466	CH 4 p-HH 45.0° 45.0° 16466
Depr Ang:	25.0°	Near Rng Dep:	53.7°	53.7°	53.7°	53.7°
Des. trk:	180.0°	Far Rng Dep:	24.0°	24.0°	24.0°	24.0°
Start Sq:	90.0°	Atten (dB):	51.0	64.0	50.0	61.0
End Sq:	90.0°	RMS Video (%FS)	29.0	13.2	24.3	16.9

WAYPOINTS

Latitude Longitude

Line_up: N 47:01.12 W 68:25.93 Main Target: IE Start: N 46:49.12 W 68:25.93 Mocomp Point:

End: N 46:39.12 W 68:25.93 Lat: N 46:44.12 Long: W 68:28.98

From: N 63:21.83 W 68:25.93 Tgt Trk: 0.0 Tgt Vel: 0.0

N 30:02.59 W 68:25.93 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts) Resolution: N/A Swath width: Single Ave Gndspd: Real -> 254.4 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL U2B Range Tracking is OFF Clutterlock Reference: OFF

Ave Ref Vel -> 1.6 fps (s.d.= 1.2) Ave Fil Vel -> 2.2 fps (s.d.= .9)

TX Chirp Filename: CTL:U2B

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -70.0	Elevat:on:	0.0°	-	_	
L: -70.0	Azimuth:	0.0°	Starting:	3888 ft	(1)

RX Chirp Filename: CRL1NOA

Ending: 5113 ft

(1)

C: -70.0 P: 47.2

Vel Bias CAL Atten LINE Map Time (UCT) X: 63.8 dB Start: 23:06:45 **X**: 1024.0 L: 63.8 dB Y: -463.0 End: 23:09:22 C: 63.8 dB **Z**: 6435.0

Pitch: 0.0°

CPA (UCT): 00:00:00 Mocomp Counters

Alt: 0 ft (GPS) 452624 Lat: N 0:00: 0 Start: 0006]]810h 478957 00074:EEDh Lon: E 0:00: 0 End:

Post-line Data Sheet 27 Jun 1995 Time: 178:23:19:10

Tape: E1439 Pass 8 Line 9

Mission: Presque Isle DAY 3 Req.# 5

AIRCRAFT & CHANNEL DATA

Altitude	•		CH 1	CH 2	CH 3	CH 4
Desired:	13500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	13314 ft s.d =	3 Swath Ctr Ang:	45.0°	45.0°	45.0°	45.0°
Slt. rng:	18003 ft	Tgt Dep Ang:	45.0°	45.0°	45.0°	45.0°
Look:	Right	St rng (ft):	16466	16466	16466	16466
Depr Ang:	25.0°	Near Rng Dep:	54.0°	54.0°	54.0°	54.0°
Des. trk:	270.0°	Far Rng Dep:	24.1°	24.1°	24.1°	24.1°
Start Sq:	90.0°	Atten (dB):	54.0	64.0	55.0	61.0
End Sq:	90.0°	RMS Video (%FS)	25.8	22.4	18.5	19.6

WAYPOINTS

	Latitude	Longitude	
Line up:	N 46:41.98	W 68:04.28	Main Target: IE

Start: N 46:42.02 W 68:21.71 Mocomp Point: End: N 46:42.02 W 68:36.25 Lat: N 46:44.12

Long: W 68:28.98 From: N 44:13.17 W 44:58.54 To: N 44:13.17 W 91:59.42 Tgt Trk: 0.0 Tgt Vel: 0.0

Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts) Resolution: N/A Swath width: Single Ave Gndspd: Real -> 251.8 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: 0.0 ft

Range Tracking is OFF
Clutterlock Reference
RX Chirp Filename: CD Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> .9 fps (s.d.= 1.1) Ave Fil Vel \rightarrow 2.4 fps (s.d.= .9)

NML XMIT PWR	ANT BIAS		Tape Foo	otage		Drive no.
X: -70.0	Elevaton:	0.0°	_	-		
T - 70 0	7 - 2 1	0 0 0	a.	F100	C+	(0)

Azimuth:
Pitch: 0.0° Starting: 5128 ft Ending: 6384 ft L: -70.0 (1)C: -70.0 Pitch: (1)

P: 47.2

Vel Bias CAll Atten LINE Map Time (UCT) X: 1024.0 Start: 23:19:10 X: 63.8 dB Y: -463.0 L: 63.8 dB End: 23:21:52 C: 63.8 dB Z: 6435.0

Mocomp Counters CPA (UCT): 00:00:00

Alt: 0 ft (GPS) Start: 500974 0007A4EEh Lat: N 0:00: 0 End: 528135 00080F07h Lon: E 0:00: 0

27 Jun 1995 Post-line Data Sheet Time: 178:23:30:01

Tape: E1439 Line 11 Pass 9
Mission: Presque Isle DAY 3 Req.# 6

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	13500 ft 13297 ft s.d = 18003 ft Right	Wave/Pol.: 4 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 45.0° 45.0° 16466	CH 2 p-VH 45.0° 45.0° 16466	CH 3 p-HV 45.0° 45.0° 16466	CH 4 p-HH 45.0° 45.0° 16466
Depr Ang:	25.0°	Near Rng Dep:	53.9°	53.9°	53.9°	53.9°
Des. trk:	90.0°	Far Rng Dep:	24.1°	24.1°	24.1°	24.1°
Start Sq:	90.0°	Atten (dB):	54.0	67.0	55.0	63.0
End Sq:	90.0°	RMS Video (%FS)	24.1	11.8	16.3	15.9

WAYPOINTS

	Latitude	Longitude	
Line_up:	N 46:46.17	W 68:53.71	Main Target: IE
Start:	N 46:46.21	W 68:36.25	Mocomp Point:
End:	N 46:46.21	W 68:21.71	Lat: N 46:44.12
			Long: W 68:28.98

From: N 44:17.01 W 92:01.04 Tgt Trk: 0.0 Tgt Vel: 0.0 To: N 44:17.01 W 44:56.92 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 252.0 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Tracking is OFF Range Gate Delta: 0.0 ft Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> .4 fps (s.d.= 2.3) Ave Fil Vel -> .7 fps (s.d.= 2.0)

NML	XMIT PWR	ANT BIAS		Tape Foot	tage		Drive no.
X :	-70.0	Elevaton:	0.0°	_	-		
L:	-70.0	Azimuth:	0.0°	Starting:	6399	ft	(1)
C:	-70.0	Pitch:	0.0°	Ending:	7645	ft	(1)
P:	47.2			_			• •

CPA (UCT): 00:00:00

Ve	l Bias	CA	l Atten	LINE Map	Time (UCT)
X:	1024.0	X :	63.8 dB	Start:	23:30:01
Y:	-463.0	L:	63.8 dB	End:	23:32:39
7 •	6435 0	c.	62 0 AD		

Mocomp Counters

			Alt:	0 ft (GPS)
Start:	558847	0008::6FFh	Lat: N	0:00: 0
End:	585317	0008]:E65h	Lon: E	0:00: 0

Post-line Data Sheet

Line 13

Mission: Presque Isle DAY 3 Req.#

Time: 178:23:41:40

Pass 10

0.0

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	13500 ft 13315 ft s.d = 17961 ft Right	Wave/Pol.: 5 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 45.0° 45.0° 16424	CH 2 p-VH 45.0° 45.0° 16424	CH 3 p-HV 45.0° 45.0° 16424	CH 4 p-HH 45.0° 45.0° 16424
Depr Ang:	25.0°	Near Rng Dep:	54.2°	54.2°	54.2°	54.2°
Des. trk:	276.0°	Far Rng Dep:	24.1°	24.1°	24.1°	24.1°
Start Sq:	90.0°	Atten (dB):	55.0	65.0	55.0	61.0
End Sq:	90.0°	RMS Video (%FS)	21.7	13.5	16.9	19.0

WAYPOINTS

Latitude Longitude

Line_up: N 46:40.39 W 68:04.74 Main Target: CALCS Start: N 46:41.68 W 68:22.07 Mocomp Point: End: N 46:42.73 W 68:36.53 Lat: N 46:44.29

Long: W 68:28.98

From: N 42:36.03 W 45:45.85 Tgt Trk: 0.0 Tgt Vel: Alt: 800.0 ft N 45:53.35 W 92:35.40

RADAR PARAMETERS - for UVB

Filter damping is Hi -> 10 sec RTP Channel: 1 PRF Factor is FAST (262.5 kts) Resolution: N/A Swath width: Single Ave Gndspd: Real -> 251.0 kts RMS Time Constant: 2⁷ Mocomp Off for Chnl 1, 2, 3, 4 GPS Vel/Pos Reference Position Reference: ON Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: ().0 ft Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -.8 fps (s.d.= 1.5) Ave Fil Vel -> .6 fps; (s.d.= 1.2)

TX Chirp Filename: CTLLU2B

NML XMIT PWR	ANT BIAS		Tape Fo	otage		Drive no.
X: -70.0	Elevat:on:	0.0°				
L: -70.0	Azimuth:	0.0°	Starting:	7660	ft	(1)
C: -70.0	Pitch:	0.0°	Ending:	8928	ft	(1)
P: 47.1			_			

CPA (UCT): 00:00:00

CAll Atten LINE Map Time (UCT) Vel Bias Start: 23:41:40 X: 1024.0 X: 63.8 dB End: 23:44:21 **Y:** -463.0 L: 63.8 dB Z: 6435.0 C: 63.8 dB

Mocomp Counters

Alt: 0 ft (GPS) 622168 0009"E58h Lat: N 0:00: 0 Start: End: 649162 0009];7CAh Lon: E 0:00:0

Post-line Data Sheet

Time: 178:23:53:19 Line 15 Pass 11

0.0

Mission: Presque Isle DAY 3 Req.#

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9862 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.6°	35.6°	35.6°	35.6°
Des. trk:	180.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	52.0	65.0	51.0	61.0
End Sq:	90.0°	RMS Video (%FS)	23.8	12.0	18.6	15.1

WAYPOINTS

Latitude Longitude

Line_up: N 47:01.12 W 68:25.15 Main Target: IE Start: N 46:49.12 W 68:25.15 Mocomp Point: End: N 46:39.12 W 68:25.15

Lat: N 46:44.12 Long: W 68:28.98 Tgt Trk: 0.0 Tgt Vel:

From: N 63:21.83 W 68:25.15 N 30:02.59 W 68:25.15 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 251.7 kts Mocomp Off for Chnl 1, 2, 3, 4 RMS Time Constant: 2^7 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: 0.0 ft Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel \rightarrow -4.7 fps (s.d.= .6) Ave Fil Vel \rightarrow -4.7 fps (s.d.= .5)

NML XMIT PWR	AN' BIAS		Tape Fo	ootage		Drive no.
X: -70.0	Elevaton:	0.0°	_	_		
L: -70.0	Azimuth:	0.0°	Starting:	8942	ft	(1)
C: -70.0	Pitch:	0.0°	Ending:	10185	ft	(1)

P: -70.0

Vel Bias LINE Map Time (UCT) CAl Atten X: 63.8 dB 1024.0 X: Start: 23:53:19 L: 63.8 dB C: 63.8 dB **Y**: -463.0 End: 23:55:59 **Z**: 6435.0

Mocomp Counters CPA (UCT): 00:00:00

Alt: 0 ft (GPS) 667010 000A::D82h Lat: N 0:00: 0 Start: End: 693841 000A9651h Lon: E 0:00: 0

Post-line Data Sheet

Line 17

Mission: Presque Isle DAY 3 Req.#

Time: 179:00:04:13

Pass 12

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9894 ft s.d = 18460 ft Right	Wave/Pol.: 4 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.8°	35.8°	35.8°	35.8°
Des. trk:	0.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB): RMS Video (%FS)	52.0	68.0	51.0	67.0
End Sq:	90.0°		23.9	9.9	19.6	11.1

WAYPOINTS

Latitude Longitude
Line_up: N 46:27.13 W 68:32.80 Main Target: IE
Start: N 46:39.12 W 68:32.80 Mocomp Point:
End: N 46:49.12 W 68:32.80 Lat: N 46:44.12
Long: W 68:28.98

From: N 30:02.59 W 68:32.80 Tgt Trk: 0.0 Tgt Vel: 0.0

To: N 63:21.83 W 68:32.80 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1

Resolution: N/A

Swath width: Single

RMS Time Constant: 2^7

Position Reference: ON

Atten. Tracking: OFF

Range Gate Delta: 0.0 ft

Azimuth Presum Rate: Presum6

Filter damping is Hi -> 10 sec

PRF Factor is FAST (262.5 kts)

Ave Gndspd: Real -> 254.9 kts

Mocomp Off for Chnl 1, 2, 3, 4

GPS Vel/Pos Reference

Adj Gnd Scene: 5000.0 ft

Range Tracking is OFF

Clutterlock Reference: OFF

RX Chirp Filename: CRL1NOA

CPA (UCT): 00:00:00

Ave Ref Vel -> .7 fps (s.d.= 1.4) Ave Fil Vel -> 1.4 fps (s.d.= 1.1)

TX Chirp Filename: CTL:U2A

NML XMIT PWR	ANT BIAS		Tape Fo	otage		Drive no.
X: -70.0	Elevaton:	0.0°				
L: -70.0	Azimuth:	0.0°	Starting:	200		(2)
C: -70.0	Pitch:	0.0°	Ending:	1434	ft	(2)
P: 46.4						

 Vel Bias
 CAL Atten
 LINE Map Time (UCT)

 X: 1024.0
 X: 63.8 dB
 Start: 00:04:13

 Y: -463.0
 L: 63.8 dB
 End: 00:06:46

 Z: 6435.0
 C: 63.8 dB

Mocomp Counters

 Alt:
 0 ft (GPS)

 Start:
 726024 000B: 408h
 Lat: N 0:00: 0

 End:
 751689 000B: 849h
 Lon: E 0:00: 0

28 Jun 1995 Post-line Data Sheet Time: 179:00:17:57

Tape: E1440 Line 19 Pass 13
Mission: Presque Isle DAY 3 Req.# 10

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9883 ft s.d = 18460 ft Right	Wave/Pol.: 3 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.7°	35.7°	35.7°	35.7°
Des. trk:	270.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	54.0	63.0	53.0	65.0
End Sq:	90.0°	RMS Video (%FS)	19.9	14.4	18.2	13.4

WAYPOINTS

Latitude Longitude

Line_up: N 46:41.44 W 68:04.28 Main Target: IE Start: N 46:41.48 W 68:21.71 Mocomp Point:

End: N 46:41.48 W 68:36.25 Lat: N 46:44.12 Long: W 68:28.98

From: N 44:12.68 W 44:58.75 Tgt Trk: 0.0 Tgt Vel: 0.0

To: N 44:12.68 W 91:59.21 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec
Resolution: N/A PRF Factor is FAST (262.5 kts)
Swath width: Single Ave Gndspd: Real -> 249.7 kts
RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON GPS Vel/Pos Reference
Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft Range Tracking is OFF

Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF
TX Chirp Filename: CTLLU2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -9.5 fps; (s.d.= 7.1) Ave Fil Vel -> -7.9 fps; (s.d.= 6.9)

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -70.0	Elevat:.on:	0.0°			
T. • -70 0	Azimuth.	0.0°	Starting:	1448 ft	(2)

L: -70.0 Azimuth: 0.0° Starting: 1448 ft (2) C: -70.0 Pitch: 0.0° Ending: 2692 ft (2)

P: 46.8

 Vel Bias
 CAL Atten
 LINE Map Time (UCT)

 X: 1024.0
 X: 63.8 dB
 Start: 00:17:57

 Y: -463.0
 L: 63.8 dB
 End: 00:20:37

 Z: 6435.0
 C: 63.8 dB

Mocomp Counters CPA (UCT): 00:00:00

 Alt:
 0 ft (GPS)

 Start:
 784368 000B)'7F0h
 Lat: N 0:00: 0

 End:
 811200 000C60C0h
 Lon: E 0:00: 0

28 Jun 1995

Post-line Data Sheet Line 21

Time: 179:00:27:52

Tape: E1440

Mission: Presque Isle DAY 3 Req.#

Pass 14 Req.# 11

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9875 ft s.d = 18460 ft Right	Wave/Pol.: 3 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.7°	35.7°	35.7°	35.7°
Des. trk:	90.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	51.0	63.0	51.0	66.0
End Sq:	90.0°	RMS Video (%FS)	23.8	11.5	17.1	11.8

WAYPOINTS

Latitude Longitude
Line_up: N 46:46.70 W 68:53.71 Main Target: IE
Start: N 46:46.74 W 68:36.25 Mocomp Point:
End: N 46:46.74 W 68:21.71 Lat: N 46:44.12
Long: W 68:28.98

From: N 44:17.50 W 92:01.25 Tgt Trk: 0.0 Tgt Vel: 0.0

To: N 44:17.50 W 44:56.71 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

Filter damping is Hi -> 10 sec RTP Channel: 1 PRF Factor is FAST (262.5 kts) Resolution: N/A Swath width: Single Ave Gndspd: Real -> 250.0 kts Mocomp Off for Chnl 1, 2, 3, 4 RMS Time Constant: 2^7 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Tracking is OFF Range Gate Delta: 0.0 ft Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTLLU2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 2.0 fps; (s.d.= 4.2) Ave Fil Vel -> 1.3 fps; (s.d.= 3.9)

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -70.0	Elevation:	0.0°			
L: -70.0	Azimuth:	0.0°	Starting:	2706 ft	(2)
C: -70.0	Pitch:	0.0°	Ending:	3963 ft	(2)
P: 46.6					

CPA (UCT): 00:00:00

Ve	l Bias	CAL Atte	n	LINE 1	Map Time (UCT)
X:	1024.0	X: 63.8	dB	Sta	rt: 00:27:52
Y:	-463.0	L: 63.8	dB	End	: 00:30:31
z:	6435.0	C: 63.8	dB		

Mocomp Counters

 Start:
 835044
 000CBDE4h
 Lat: N
 0:00: 0

 End:
 861712
 000DE610h
 Lon: E
 0:00: 0

Post-line Data Sheet

Time: 179:00:39:17
Pass 15

Line 23 Pass 15
Mission: Presque Isle DAY 3 Req.#

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9889 ft s.d = 18400 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16861	CH 2 p-VH 30.0° 30.0° 16861	CH 3 p-HV 30.0° 16861	CH 4 p-HH 30.0° 30.0° 16861
Depr Ang:	25.0°	Near Rng Dep:	35.9°	35.9°	35.9°	35.9°
Des. trk:	276.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB): RMS Video (%FS)	55.0	63.0	54.0	66.0
End Sq:	90.0°		18.3	13.6	17.0	18.2

WAYPOINTS

Latitude Longitude

Line_up: N 46:39.86 W 68:04.82 Main Target: CALCS Start: N 46:41.15 W 68:22.15 Mocomp Point:

End: N 46:42.20 W 68:36.61 Lat: N 46:44.29 Long: W 68:28.98

From: N 42:35.56 W 45:46.11 Tgt Trk: 0.0 Tgt Vel: 0.0 To: N 45:52.85 W 92:35.25 Alt: 800.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec
Resolution: N/A PRF Factor is FAST (262.5 kts)
Swath width: Single Ave Gndspd: Real -> 251.6 kts
RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON GPS Vel/Pos Reference
Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft

Range Gate Delta: 0.0 ft Range Tracking is OFF
Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF
TX Chirp Filename: CTLLU2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 2.6 fp: (s.d.= .8) Ave Fil Vel -> 3.9 fp: (s.d.= .8)

NML XMIT PWR AN! BIAS Tape Footage Drive no. X: -70.0 Elevation: 0.0°

L: -70.0 Azimuth: 0.0° Starting: 3976 ft (2) C: -70.0 Pitch: 0.0° Ending: 5250 ft (2)

P: 46.6

 Vel Bias
 CAN Atten
 LINE Map Time (UCT)

 X: 1024.0
 X: 63.8 dB
 Start: 00:39:17

 Y: -463.0
 L: 63.8 dB
 End: 00:41:59

 Z: 6435.0
 C: 63.8 dB

Mocomp Counters CPA (UCT): 00:00:00

Alt: 0 ft (GPS)
Start: 893597 000Di 29Dh Lat: N 0:00: 0
End: 920725 000E0C95h Lon: E 0:00: 0

Post-line Data Sheet Time: 179:00:52:00 28 Jun 1995

Tape: E1440 Line 25 Pass 16 Mission: Presque Isle DAY 3 Req.# 13

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9900 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.8°	35.8°	35.8°	35.8°
Des. trk:	30.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB): RMS Video (%FS)	51.0	63.0	52.0	67.0
End Sq:	90.0°		29.2	13.6	21.4	13.8

WAYPOINTS

	Latitude	Longitude	
Line un:	N 46:30.71	W 68:44.60	Main Targe

Start: N 46:41.11 W 68:35.93 Main Target: IE Mocomp Point: End: N 46:49.77 W 68:28.66 Lat: N 46:44.12

Long: W 68:28.98 Tgt Trk: 0.0 Tgt Vel:

From: N 31:49.89 W 78:14.04 To: N 60:12.77 W 51:51.23 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 250.7 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Adj Gnd Scene: 5000.0 ft Atten. Tracking: OFF

0.0

Range Gate Delta: ().0 ft Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL.U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 3.0 fps (s.d.= 9.8) Ave Fil Vel -> 3.2 fps (s.d.= 9.3)

NML XMIT PWR	ANT BIAS		Tape Foo	otage		Drive no.
X: -70.0	Elevat:on:	0.0°	_	-		
T . 70 0	7. — J	0 0 0	0 to to to	F0.60	c_{\perp}	(0)

Azimuth: Pitch: 0.0° Starting: 5263 ft Ending: 6520 ft L: -70.0 (2) C: -70.0 6520 ft (2)

P: 46.6

Vel Bias CAll Atten LINE Map Time (UCT) X: 1024.0 Start: 00:52:00 X: 63.8 dB **Y**: -463.0 L: 63.8 dB End: 00:54:41 C: 63.8 dB 6435.0

Mocomp Counters CPA (UCT): 00:00:00

Alt: 0 ft (GPS) Lat: N Start: 956073 000E96A9h 0:00:0 End: 983072 Lon: E 000F()020h 0:00: 0

28 Jun 1995 Post-line Data Sheet Time: 179:01:02:43

Tape: E1440 Line 27 Pass 17
Mission: Presque Isle DAY 3 Req.# 14

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9876 ft s.d = 18460 ft Right	Wave/Pol.: 4 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang: Des. trk:	25.0° 210.0°	Near Rng Dep: Far Rng Dep:	35.7° 17.4°	35.7° 17.4°	35.7° 17.4°	35.7° 17.4°
Start Sq: End Sq:	90.0° 90.0°	Atten (dB): RMS Video (%FS)	51.0	60.0	52.0 17.9	60.0

WAYPOINTS

	Latitude	Dongitude	
Line up:	N 46:57.51	W 68:13.24	Main Target: IE
Start:	N 46:47.13	W 68:22.02	Mocomp Point:
End:	N 46:38.47	W 68:29.28	Lat: N 46:44.12

Long: W 68:28.98

From: N 60:10.02 W 51:45.39 Tgt Trk: 0.0 Tgt Vel: 0.0

To: N 31:47.42 W 78:07.50 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts) Resolution: N/A Ave Gndspd: Real -> 253.1 kts Swath width: Single Mocomp Off for Chnl 1, 2, 3, 4 RMS Time Constant: 2^7 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: 0.0 ft Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF

Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTLLU2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> .3 fps (s.d.= 1.1) Ave Fil Vel -> 3.8 fps (s.d.= 1.1)

NML XMIT PWR	ANT BIAS	}	Tape Fo	otage	Drive no.
X: -70.0	Elevat.on:	0.0°			
L: -70.0	Azimuth:	0.0°	Starting:	6533 ft	(2)
C: -70.0	Pitch:	0.0°	Ending:	7794 ft	(2)
P: 46.5					

CPA (UCT): 00:00:00

 Vel Bias
 CAL Atten
 LINE Map Time (UCT)

 X: 2079.0
 X: 63.8 dB
 Start: 01:02:43

 Y: 1867.0
 L: 63.8 dB
 End: 01:05:23

 Z: 17142.0
 C: 63.8 dB

Mocomp Counters

 Start:
 1010451
 000F6B13h
 Lat: N
 0:00: 0

 End:
 1037274
 000F03DAh
 Lon: E
 0:00: 0

Time: 179:01:13:19

28 Jun 1995 Post-line Data Sheet Time: 179:03
Tape: E1440 Line 25 Pass 18
Mission: Presque Isle DAY 3 Req.# 13

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9902 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.8°	35.8°	35.8°	35.8°
Des. trk:	30.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	52.0	67.0	52.0	66.0
End Sq:	90.0°	RMS Video (%FS)	22.2	12.8	18.7	13.7

WAYPOINTS

	Latitude	2.	ongitude	
Line_up:	N 46:30.71	W	68:44.60	Main Target: IE
Start:	N 46:41.11	W	68:35.93	Mocomp Point:
End:	N 46:49.77	W	68:28.66	Lat: N 46:44.12
				Long: W 68:28.98
From:	N 31:49.89	W	78:14.04	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 60:12.77	W	51:51.23	Alt: 770.0 ft

RADAR PARAMETERS - for UVB

Ave Ref Vel -> 4.7 fps (s.d.= 3.6) Ave Fil Vel -> 8.6 fps (s.d.= 3.4)

NML XMIT PWR	ANT BIAS		Tape Fo	ootage	Drive no.
X: -70.0	Elevat on:	0.0°			
L: -70.0	Azimuth:	0.0°	Starting:	7808 ft	(2)
C: -70.0	Pitch:	0.0°	Ending:	9083 ft	(2)
P: 46.5			_		` ,
Vel Bias	CA: Atte	n	LINE Map	Time (UCT)	
X: 2079.0	X: 63.8	dB	Start:	01:13:19	
Y: 1867.0	L: 63.8	dВ	End:	01:16:01	
Z: 17142.0	C: 63.8	dB			

CPA (UCT): 00:00:00

Mocomp Counters

			Alt:		0 ft (G	PS)
Start:	1066285	0010452Dh	Lat:	N	0:00: 0	
End:	1093454	0010AF4Eh	Lon:	E	0:00: 0	

Post-line Data Sheet 28 Jun 1995 Time: 179:01:26:37 Tape: E1440

Line 29 Pass 19 Mission: Presque Isle DAY 3 Req.# 15

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9886 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.7°	35.7°	35.7°	35.7°
Des. trk:	120.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	52.0	59.0	51.0	60.0
End Sq:	90.0°	RMS Video (%FS)	25.6	25.7	20.4	26.1

WAYPOINTS

	Lati	.tude) د د	ongitude		
Line_up:	N 46:	54.86	W	68:48.54	Mair	Target: IE
Start:	N 46:	48.89	W	68:33.37	Mod	comp Point:

End: N 46:43.89 W 68:20.78 Lat: N 46:44.12

Long: W 68:28.98

From: N 52:47.33 W 92:35.12 To: N 36:51.34 W 50:24.96 Tgt Trk: 0.0 Tgt Vel: Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 248.4 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Adj Gnd Scene: 5000.0 ft Range Tracking is OFF Clutterlock Reference: OFF RX Chirp Filename: CRL1NOA Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6 TX Chirp Filename: CTL U2B

RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -1.5 fp: (s.d.= .9) Ave Fil Vel -> 2.5 fp: (s.d.= .9)

NML XMIT PWR	ANT BIAS		Tape Fo	otage		Drive no.
X: -70.0	Elevat on:	0.0°	•	_		
L: -70.0	Azimuth:	0.0°	Starting:	9097	ft	(2)

C: -70.0 Pitch: 0.0° Ending: 10356 ft (2)

P: 46.5

Vel Bias CAL Atten LINE Map Time (UCT) X: 2079.0 X: 63.8 dB Start: 01:26:37 Y: 1867.0 L: 63.8 dB End: 01:29:21 C: 63.8 dB Z: 17142.0

Mocomp Counters CPA (UCT): 00:00:00

Alt: 0 ft (GPS) Start: 1131299 00114323h Lat: N 0:00: 0 End: 1158804 0011AE94h Lon: E 0:00:0

28 Jun 1995

Post-line Data Sheet Line 31

Time: 179:01:36:25

1441 Tape:

Mission: Presque Isle DAY 3 Reg.# 16

Pass 20

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9900 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.8°	35.8°	35.8°	35.8°
Des. trk:	300.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB):	57.0	61.0	57.0	64.0
End Sq:	90.0°	RMS Video (%FS)	22.3	18.2	19.9	15.8

WAYPOINTS

Latitude Longitude

Line_up: N 46:33.32 W 68:09.55 Main Target: IE Start: N 46:39.35 W 68:24.60 Mocomp Point:

End: N 46:44.34 W 68:37.19 Lat: N 46:44.12 Long: W 68:28.98

From: N 36:47.45 W 50:29.32 Tgt Trk: 0.0 Tgt Vel: 0.0 N 52:42.60 W 92:36.70 Alt: 770.0 ft To:

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts) Resolution: N/A Swath width: Single Ave Gndspd: Real -> 252.0 kts Mocomp Off for Chnl 1, 2, 3, 4 RMS Time Constant: 2^7 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Tracking is OFF Range Gate Delta: 0.0 ft Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF

RX Chirp Filename: CRL1NOA

CPA (UCT): 00:00:00

Ave Ref Vel -> -2.6 fps; (s.d.= 3.4) Ave Fil Vel -> 1.1 fps (s.d.=

TX Chirp Filename: CTLLU2B

NML XMIT PWR	ANT BIAS		Tape Fo	otage		Drive no.
X: -70.0	Elevat:on:	0.0°				
L: -70.0	Azimuth:	0.0°	Starting:	203	ft	(1)
C: -70.0	Pitch:	0.0°	Ending:	1460	ft	(1)
P: 46.6						

Vel Bias LINE Map Time (UCT) CAl Atten X: 2079.0 X: 63.8 dB Start: 01:36:25 1867.0 L: 63.8 dB End: 01:39:06 Z: 17142.0 C: 63.8 dB

Mocomp Counters

Alt: 0 ft (GPS) Lat: N 0:00: 0 1180490 0012034Ah Start: Lon: E 0:00: 0 End: 1207494 00126CC6h

Post-line Data Sheet

Time: 179:01:49:45

Line 33

Mission: Presque Isle DAY 3

Pass 21 Req.# 17

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9900 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.8°	35.8°	35.8°	35.8°
Des. trk:	60.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB): RMS Video (%FS)	53.0	63.0	53.0	66.0
End Sq:	90.0°		23.4	15.0	17.5	14.0

WAYPOINTS

Latitude Longitude

Line_up: N 46:37.87 W 68:52.25 Main Target: IE Start: N 46:43.90 W 68:37.18 Mocomp Point:

End: N 46:48.90 W 68:24.59 Lat: N 46:44.12 Long: W 68:28.98

From: N 36:51.35 W 86:33.02 Tgt Trk: 0.0 Tgt Vel: 0.0 To: N 52:47.34 W 44:22.84 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts)
Swath width: Single Ave Gndspd: Real -> 247.2 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft

Range Gate Delta: 0.0 ft Range Tracking is OFF
Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF
TX Chirp Filename: CTL.U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 3.3 fps; (s.d.= 7.2) Ave Fil Vel -> 7.5 fps; (s.d.= 6.8)

NML XMIT PWR	ANT BIAS		Tape Fo	otage		Drive no.
X: -70.0	Elevat:on:	0.0°	_	_		
L: -70.0	Azimuth:	0.0°	Starting:	1476	ft	(1)
C: -70.0	Pitch:	0.0°	Ending:	2683	ft	(1)

CPA (UCT): 00:00:00

P: 46.5

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2079.0	X: 63.8 dB	Start: 01:49:45
Y: 1867.0	L: 63.8 dB	End: 01:52:25
Z: 17142.0	C: 63.8 dB	

Mocomp Counters

 Start:
 1252216
 0013:.B78h
 Lat: N 0:00: 0

 End:
 1279011
 0013:423h
 Lon: E 0:00: 0

AIRCRAFT & CHANNEL DATA

Desired: 10000 ft Wave/Pol.: p-VV p-VH p-HV p-HH
Baro: 9889 ft s.d = 2 Swath Ctr Ang: 30.0° 30.0° 30.0° 30.0°
Slt. rng: 18460 ft Tgt Dep Ang: 30.0° 30.0° 30.0° 30.0°
Look: Right St rng (ft): 16922 16922 16922 Depr Ang: 25.0° Des. trk: 240.0° Near Rng Dep: Far Rng Dep: 35.8° 35.8° 35.8° 35.8° 17.4° 17.4° 17.4° 17.4°

 Start Sq:
 90.0°
 Atten (dB):
 51.0
 61.0
 49.0
 66.0

 End Sq:
 90.0°
 RMS Video (%FS)
 27.9
 15.9
 26.1
 15.7

WAYPOINTS

Latitude Longitude

Line_up: N 46:50.30 W 68:05.61 Main Target: IE
Start: N 46:44.33 W 68:20.76 Mocomp Point:
End: N 46:39.33 W 68:33.35 Lat: N 46:44.12
Long: W 68:28.98
From: N 52:42.59 W 44:21.25 Tgt Trk: 0.0 Tgt Vel: 0.0
To: N 36:47.44 W 86:28.63 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts)
Swath width: Single Ave Gndspd: Real -> 255.1 kts
RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON GPS Vel/Pos Reference
Atten. Tracking: OFF Adi Gnd Scene: 5000 0 ft Range Gate Delta: 0.0 ft
Razimuth Presum Rate: Presum6
TX Chirp Filename: CTL.U2B

RED vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CDIAMOR

Ave Ref Vel \rightarrow -2.6 fps (s.d.= 11.2) Ave Fil Vel -> .8 fps (s.d.= 10.7)

NML XMIT PWR ANN BIAS

X: -70.0 Elevation: 0.0°

L: -70.0 Azimuth: 0.0°

C: -70.0 Pitch: 0.0° Tape Footage Drive no.

CPA (UCT): 00:00:00

Starting: 2697 ft (1)Ending: 3902 ft (1)

P: 46.6

 Vel Bias
 CAL Atten

 X: 2079.0
 X: 63.8 dB

 Y: 1867.0
 L: 63.8 dB

 Z: 17142.0
 C: 63.8 dB

 LINE Map Time (UCT) Start: 02:01:48 End: 02:04:22

Mocomp Counters

Alt: 0 ft (GPS) Lat: N 0:00:0 Start: 1315361 0014:.221h End: 1341200 0014"710h Lon: E 0:00: 0

Post-line Data Sheet Time: 179:02:16:28 28 Jun 1995

Tape: 1441 Line 31

Pass 23 Mission: Presque Isle DAY 3 Req.# 16

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	10000 ft 9903 ft s.d = 18460 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 30.0° 30.0° 16922	CH 2 p-VH 30.0° 30.0° 16922	CH 3 p-HV 30.0° 16922	CH 4 p-HH 30.0° 30.0° 16922
Depr Ang:	25.0°	Near Rng Dep:	35.8°	35.8°	35.8°	35.8°
Des. trk:	300.0°	Far Rng Dep:	17.4°	17.4°	17.4°	17.4°
Start Sq:	90.0°	Atten (dB): RMS Video (%FS)	55.0	60.0	54.0	65.0
End Sq:	90.0°		23.3	15.8	21.9	12.4

WAYPOINTS

	Latitude	Longitude	
Line_up:	N 46:33.32	W 68:09.55	Main Target: IE
Start:	N 46:39.35	W 68:24.60	Mocomp Point:

N 46:44.34 W 68:37.19 Lat: N 46:44.12 End:

Long: W 68:28.98

From: N 36:47.45 W 50:29.32 Tgt Trk: 0.0 Tgt Vel: N 52:42.60 W 92:36.70 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec PRF Factor is FAST (262.5 kts) Resolution: N/A Swath width: Single Ave Gndspd: Real -> 247.4 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: Range Tracking is OFF ().0 ft

Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 5.3 fps (s.d.= 9.6) Ave Fil Vel -> 8.9 fps (s.d.= 9.0)

NML XMIT PWR	AN' BIAS		Tape Fo	Drive no.	
X: -70.0	Elevat:.on:	0.0°	_	_	
L: -70.0	Azimuth:	0.0°	Starting:	3918 f	t (1)
C: -70.0	Pitch:	0.0°	Ending:	5121 f	t (1)

CPA (UCT): 00:00:00

P: 46.7

Vel Bias	CAll Atten	LINE Map Time (UCT)
X: 2079.0	X: 63.8 dB	Start: 02:16:28
Y: 1867.0	L: 63.8 dB	End: 02:19:09
Z: 17142.0	C: 63.8 dB	

Mocomp Counters

Alt: 0 ft (GPS) Lat: N 0:00: 0 Start: 1366879 0014DB5Fh 1393891 001544E3h Lon: E 0:00: 0 End:

Post-line Data Sheet 28 Jun 1995 Tape: 1441 Time: 179:02:38:13

Line 41 Pass 24 Mission: Presque Isle DAY 3 Req.# 22

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	6000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5940 ft s.d =	3 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	20207 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	18672	18672	18672	18672
Depr Ang:	25.0°	Near Rng Dep:	18.6°	18.6°	18.6°	18.6°
Des. trk:	180.0°	Far Rng Dep:	9.8°	9.8°	9.8°	9.8°
Start Sq:	90.0°	Atten (dB):	48.0	55.0	48.0	57.0
End Sq:	90.0°	RMS Video (%FS)	25.4	14.6	18.5	19.0

WAYPOINTS

	Latitude	Longitude	
Line_up:	N 47:01.12	W 68:24.31	Main Target: IE
Start:	N 46:49.12	W 68:24.31	Mocomp Point:
End:	N 46:39.12	W 68:24.31	Lat: N 46:44.12
			Long: W 68:28.98
From:	N 63:21.83	W 68:24.31	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 30:02.59	W 68:24.31	Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 249.8 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: 0.0 ft Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTLLU2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -1.2 fps; (s.d.= 6.4) Ave Fil Vel -> .6 fps (s.d.=

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -70.0 L: -70.0 C: -70.0 P: 46.5	Elevathon: Azimuth: Pitch:	0.0° 0.0°	Starting: Ending:	5136 ft 6402 ft	(1) (1)
Vel Bias	CAll Atte	n	LINE Map	Time (UCT)	

V	er Blas	CA.	Atten	TINE Map	Time (UCT)
X:	2079.0	X:	63.8 dB	Start:	02:38:13
Y:	1867.0	L:	63.8 dB	End:	02:40:53
z:	17142.0	C:	63.8 dB		

Mocomp Counters CPA (UCT): 00:00:00

			Alt:		UIT	(GPS)
Start:	1449751	0016:.F17h	Lat:	N	0:00:	0
End:	1476593	001687F1h	Lon:	\mathbf{E}	0:00:	0

Post-line Data Sheet

Line 43

Mission: Presque Isle DAY 3

Time: 179:02:48:11

0.0

Pass 25 Req.# 23

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	6000 ft 5950 ft s.d = 20207 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 15.0° 15.0° 18672	CH 2 p-VH 15.0° 15.0° 18672	CH 3 p-HV 15.0° 15.0° 18672	CH 4 p-HH 15.0° 15.0° 18672
Depr Ang:	25.0°	Near Rng Dep:	18.6°	18.6°	18.6°	18.6°
Des. trk:	0.0°	Far Rng Dep:	9.8°	9.8°	9.8°	9.8°
Start Sq:	90.0°	Atten (dB):	53.0	73.0	54.0	73.0
End Sq:	90.0°	RMS Video (%FS)	17.7	6.1	12.2	5.6

WAYPOINTS

Latitude Longitude
Line_up: N 46:27.13 W 68:33.65 Main Target: IE
Start: N 46:39.12 W 68:33.65 Mocomp Point:

End: N 46:49.12 W 68:33.65 Lat: N 46:44.12

Long: W 68:28.98 From: N 30:02.59 W 68:33.65 Tgt Trk: 0.0 Tgt Vel:

To: N 63:21.83 W 68:33.65 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts)
Swath width: Single Ave Gndspd: Real -> 251.7 kts
RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON GPS Vel/Pos Reference
Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft

Range Gate Delta: 0.0 ft Range Tracking is OFF
Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF
TX Chirp Filename: CTLLU2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -0.0 fps (s.d.= .9) Ave Fil Vel -> 1.5 fps (s.d.= .8)

NML XMIT PWR	ANT BIAS		Tape Footage	Drive no.
X: -70.0	Elevat:.on:	0.0°		

L: -70.0 Azimuth: 0.0° Starting: 6417 ft (1) C: -70.0 Pitch: 0.0° Ending: 7650 ft (1)

CPA (UCT): 00:00:00

P: 46.4

 Vel Bias
 CA), Atten
 LINE Map Time (UCT)

 X: 2079.0
 X: 63.8 dB
 Start: 02:48:11

 Y: 1867.0
 L: 63.8 dB
 End: 02:50:47

 Z: 17142.0
 C: 63.8 dB

Mocomp Counters

 Start:
 1501772
 0016]:A4Ch
 Lat:
 N
 0:00:
 0

 End:
 1504441
 0016]:4B9h
 Lon:
 E
 0:00:
 0

28 Jun 1995 Post-line Data Sheet Time: 179:02:48:26

Tape: 1441 Line 43 Pass 26
Mission: Presque Isle DAY 3 Reg.# 23

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	6000 ft 5949 ft s.d = 20207 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 15.0° 15.0° 18672	CH 2 p-VH 15.0° 15.0° 18672	CH 3 p-HV 15.0° 15.0° 18672	CH 4 p-HH 15.0° 15.0° 18672
Depr Ang:	25.0°	Near Rng Dep:	18.6°	18.6°	18.6°	18.6°
Des. trk:	0.0°	Far Rng Dep:	9.8°	9.8°	9.8°	9.8°
Start Sq:	90.0°	Atten (dB):	53.0	70.0	54.0	70.0
End Sq:	90.0°	RMS Video (%FS)	15.3	6.0	10.8	6.3

WAYPOINTS

	Latitude	3.	ongitude	
Line up:	N 46:27.13	W	68:33.65	Main Target: IE
Start:	N 46:39.12	W	68:33.65	Mocomp Point:
End:	N 46:49.12	W	68:33.65	Lat: N 46:44.12
				Long: W 68:28.98

From: N 30:02.59 W 68:33.65 Tgt Trk: 0.0 Tgt Vel: 0.0 To: N 63:21.83 W 68:33.65 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1

Resolution: N/A

Swath width: Single

RMS Time Constant: 2^7

Position Reference: ON

Atten. Tracking: OFF

Range Gate Delta:

COLUMB AND Filename: CTLLU2B

Filter damping is Hi -> 10 sec

PRF Factor is FAST (262.5 kts)

Ave Gndspd: Real -> 251.8 kts

Mocomp Off for Chnl 1, 2, 3, 4

GPS Vel/Pos Reference

Adj Gnd Scene: 5000.0 ft

Range Tracking is OFF

Clutterlock Reference: OFF

RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 3.0 fps (s.d.= .9) Ave Fil Vel -> 4.7 fps (s.d.= .9)

NML XMIT PWR	ANT BIAS		Tape Fo	otage	Drive no.
X: -70.0 L: -70.0 C: -70.0 P: 46.4	Elevathon: Azimuth: Pitch:	0.0° 0.0°	Starting: Ending:	6417 ft 7650 ft	(1) (1)
Vel Bias	CAl. Atte	n	LINE Map	Time (UCT)	

X: 2079.0 X: 63.8 dB Start: 02:48:26
Y: 1867.0 L: 63.8 dB End: 02:50:47
Z: 17142.0 C: 63.8 dB

Mocomp Counters CPA (UCT): 00:00:00

Start: 1504441 0016]'4B9h Lat: N 0:00: 0
End: 1527940 00175084h Lon: E 0:00: 0

28 Jun 1995 Post-line Data Sheet Time: 179:03:02:38

Tape: 1441 Line 45 Pass 27
Mission: Presque Isle DAY 3 Req.# 24

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	6000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5957 ft s.d =	3 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	20207 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	18672	18672	18672	18672
Depr Ang:	25.0°	Near Rng Dep:	18.6°	18.6°	18.6°	18.6°
Des. trk:	270.0°	Far Rng Dep:	9.9°	9.9°	9.9°	9.9°
Start Sq:	90.0°	Atten (dB):	58.0	62.0	58.0	62.0
End Sq:	90.0°	RMS Video (%FS)	9.8	9.4	7.7	10.6

WAYPOINTS

	Latitude	Longitude	
Line_up:	N 46:40.86	W 68:04.28	Main Target: IE
Start:	N 46:40.90	W 68:21.71	Mocomp Point:
End:	N 46:40.90	W 68:36.25	Lat: N 46:44.12
			Long: W 68:28.98

From: N 44:12.15 W 44:58.97 Tgt Trk: 0.0 Tgt Vel: 0.0 To: N 44:12.15 W 91:58.99 Alt: 770.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 250.2 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -1.8 fps (s.d.= .9) Ave Fil Vel -> -.4 fps (s.d.= .7)

NML XMIT PWR	ANT BIAS	3	Tape Fo	otage	Drive no.
X: -70.0 L: -70.0 C: -70.0 P: 46.2	Elevation: Azimuth: Pitch:	0.0° 0.0° 0.0°	Starting: Ending:	7665 ft 8917 ft	(1)

CPA (UCT): 00:00:00

 Vel Bias
 CAL Atten
 LINE Map Time (UCT)

 X: 2079.0
 X: 63.8 dB
 Start: 03:02:38

 Y: 1867.0
 L: 63.8 dB
 End: 03:05:17

 Z: 17142.0
 C: 63.8 dB

Mocomp Counters

 Alt:
 0 ft (GPS)

 Start:
 1564287 0017DE7Fh
 Lat: N 0:00: 0

 End:
 1590796 0018::60Ch
 Lon: E 0:00: 0

Post-line Data Sheet

Time: 179:03:13:11 Pass 28

Line 47 Mission: Presque Isle DAY 3 Req.#

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	6000 ft 5947 ft s.d = 20207 ft Right	Wave/Pol.: 2 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 15.0° 15.0° 18672	CH 2 p-VH 15.0° 15.0° 18672	CH 3 p-HV 15.0° 15.0° 18672	CH 4 p-HH 15.0° 15.0° 18672
Depr Ang:	25.0°	Near Rng Dep:	18.6°	18.6°	18.6°	18.6°
Des. trk:	90.0°	Far Rng Dep:	9.8°	9.8°	9.8°	9.8°
Start Sq:	90.0°	Atten (dB):	48.0	61.0	47.0	61.0
End Sq:	90.0°	RMS Video (%FS)	27.0	17.2	20.1	18.1

WAYPOINTS

Latitude Longitude Line up: N 46:47.28 W 68:53.71 Main Target: IE Start: N 46:47.33 W 68:36.25 Mocomp Point: End: N 46:47.33 W 68:21.71 Lat: N 46:44.12 Long: W 68:28.98

From: N 44:18.04 W 92:01.47 Tgt Trk: 0.0 Tgt Vel: To: N 44:18.04 W 44:56.49 Alt: 770.0 ft 0.0

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 251.6 kts RMS Time Constant: 2^7 Mocomp Off for Chnl 1, 2, 3, 4 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6 Range Tracking is OFF Clutterlock Reference: OFF TX Chirp Filename: CTL:U2B RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 2.9 fps (s.d.= 8.6) Ave Fil Vel -> 4.9 fps (s.d.=

\mathtt{NML}	XMIT PWR	ANT BIAS		Tape Foo	otage		Drive no.
X:	-70.0	Elevaton:	0.0°	_	_		
L:	-70.0	Azimuth:	0.0°	Starting:	8931	ft	(1)
C:	-70.0	Pitch:	0.0°	Ending:	10190	ft	(1)
P:	46.1			_			

CPA (UCT): 00:00:00

CAll Atten X: 63.8 dB Vel Bias LINE Map Time (UCT) X: 2079.0 Start: 03:13:11 Y: 1867.0 L: 63.8 dB End: 03:15:51 Z: 17142.0 C: 63.8 dB

Mocomp Counters

Alt: 0 ft (GPS) Lat: N Start: 1616643 0018hB03h 0:00:0 Lon: E End: 1643480 0019:.3D8h 0:00:0

Post-line Data Sheet

CPA (UCT): 00:00:00

Time: 179:03:24:16

0.0

Line 49

Mission: Presque Isle DAY 3 Req.# 26

Pass 29

AIRCRAFT & CHANNEL DATA

Altitude Desired: Baro: Slt. rng: Look:	6000 ft 5961 ft s.d = 20091 ft Right	Wave/Pol.: 3 Swath Ctr Ang: Tgt Dep Ang: St rng (ft):	CH 1 p-VV 15.0° 15.0° 18556	CH 2 p-VH 15.0° 15.0° 18556	CH 3 p-HV 15.0° 15.0° 18556	CH 4 p-HH 15.0° 15.0° 18556
Depr Ang:	25.0°	Near Rng Dep:	18.7°	18.7°	18.7°	18.7°
Des. trk:	276.0°	Far Rng Dep:	9.9°	9.9°	9.9°	9.9°
Start Sq:	90.0°	Atten (dB): RMS Video (%FS)	60.0	63.0	60.0	63.0
End Sq:	90.0°		7.1	8.8	5.4	9.6

WAYPOINTS

Latitude Longitude Line_up: N 46:39.29 W 68:04.91 Main Target: CALCS Start: N 46:40.59 W 68:22.23 Mocomp Point: End: N 46:41.63 W 68:36.69 Lat: N 46:44.29

Long: W 68:28.98 Tgt Trk: 0.0 Tgt Vel:

From: N 42:35.05 W 45:46.39 To: N 45:52.31 W 92:35.10 Alt: 800.0 ft

RADAR PARAMETERS - for UVB

RTP Channel: 1 Filter damping is Hi -> 10 sec Resolution: N/A PRF Factor is FAST (262.5 kts) Swath width: Single Ave Gndspd: Real -> 249.2 kts Mocomp Off for Chnl 1, 2, 3, 4 RMS Time Constant: 2^7 Position Reference: ON GPS Vel/Pos Reference Atten. Tracking: OFF Adj Gnd Scene: 5000.0 ft Range Gate Delta: ().0 ft Range Tracking is OFF Azimuth Presum Rate: Presum6 Clutterlock Reference: OFF RX Chirp Filename: CRL1NOA TX Chirp Filename: CTL:U2B

Ave Ref Vel -> 2.2 fps (s.d.= 4.3) Ave Fil Vel -> 3.5 fps (s.d.=

NML XMIT PWR	ANT BIAS		Tape Fo	Drive no.	
X: -70.0	Elevat:.on:	0.0°	-	-	
L: -70.0	Azimuth:	0.0°	Starting:	200 ft	(2)
C: -70.0	Pitch:	0.0°	Ending:	1446 ft	(2)
P: 46.0					

Vel Bias CA), Atten LINE Map Time (UCT) X: 2079.0 X: 63.8 dB Start: 03:24:16 Y: 1867.0 L: 63.8 dB End: 03:26:58 Z: 17142.0 C: 63.8 dB

Mocomp Counters

Alt: 0 ft (GPS) 1670511 0019"D6Fh Lat: N 0:00: 0 Start: End: 1697661 00191177Dh Lon: E 0:00: 0